WESTERN PENNSYLVANIA HISTORICAL MAGAZINE

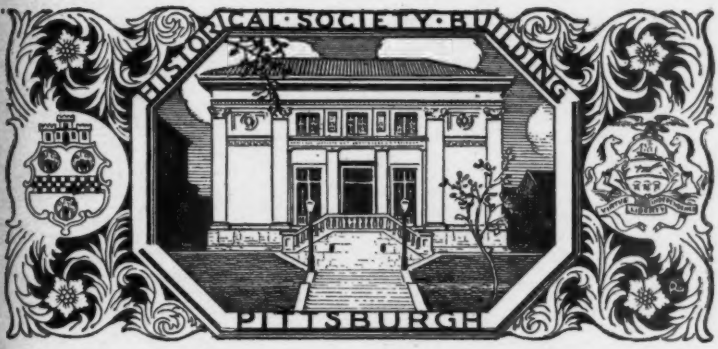

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Table of Contents

	PAGE
Announcement	141
Algonkian Sites of Westmoreland and Fayette Counties, Pennsylvania, *by Robert M. Engberg, supplement by George S. Fisher*	143
Captain Samuel A. Craig's Memoirs of Civil War and Reconstruction	191
The Pioneer Iron Industry in Western Pennsylvania, *by George W. Hughes*	207
The Intellectual Life of Pittsburgh, 1786-1836, *by Edward Park Anderson*	225
The French Architect of the Allegheny City Hall, *by Emilie McCreery*	237
Report of the Librarian	242

THE WESTERN PENNSYLVANIA HISTORICAL MAGAZINE

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SOLON J. BUCK, Ph. D.
Director of Historical Survey
Historical Society of Western Pennsylvania.

WESTERN PENNSYLVANIA HISTORICAL MAGAZINE

VOL. 14. JULY, 1931 NO. 3

Announcement

It is with special pleasure that the Historical Society of Western Pennsylvania announces the appointment of Dr. Solon J. Buck, Superintendent of the Minnesota Historical Society, as the newly appointed Director of the Historical Survey of Western Pennsylvania. Dr. Buck is probably the best qualified man in the United States to head up the work soon to be undertaken. Judged by his record for the past seventeen years, he may be called a "man of action". In speaking of his work in Minnesota, Dr. T. C. Blegen, a member of the State Historical Society's staff, said:-

The seventeen years from 1914 to 1931, marking the administration of Dr. Solon J. Buck as superintendent of the Minnesota Historical Society, are a period of rapid growth, broadening service, high standards of professional competence in the staff, and vigorous activity in the life of the Society.

Early in 1915—some three months after his appointment as superintendent—Dr. Buck launched a quarterly magazine first known as the *Minnesota History Bulletin* now published under the title of *Minnesota History*. This periodical, at present in its twelfth volume and its seventeenth year, is characterized by Dr. Evarts B. Greene, recently president of the American Historical Association, as "one of the best magazines of its kind in the country."

Since his arrival in Minnesota in 1914, Dr. Buck has stressed the importance of preserving the unpublished manuscripts that contain information of value for Minnesota history. During his administration, the Society's manuscript collection has increased in size by at least ten times. Thousands of papers and documents, garnered from a wide area, have been added to this repository of precious material. While the collection has been constantly growing, its resources have been in increasing use by scholars who have been in increasing use by scholars who have been attracted to St. Paul from many parts of the United States; and in numerous books and articles are to be found evidences of research in this extraordinary Minnesota collection.

The Society's membership has grown from 347 at the end of 1914 to more than 1,500 in 1931.

The Society has promoted the appreciation of state and local history in the schools. Nearly two hundred schools and libraries throughout the state subscribe to the Society's current publications.

These are some of the lines of development and progress which have made the Minnesota Historical Society one of the outstanding state historical societies in America, a vital and useful organization in the state, and one that has been carried far beyond the borders of the state in influence. It may perhaps be said that Dr. Buck and the organization over which he has presided these seventeen years have cultivated in Minnesota a new state historical consciousness. Through public addresses, cooperation with the press, the writing of articles, travels about the state, and the development of many contacts with citizens, Dr. Buck has sought to supplement and enforce the program of public education which he has incorporated in the Society's general plan.

Dr. Buck has combined with his historical society work the teaching of American history at the University of Minnesota, where he has directed research especially in the field of Minnesota history and has left the marks of his scholarship on more than four generations of students.

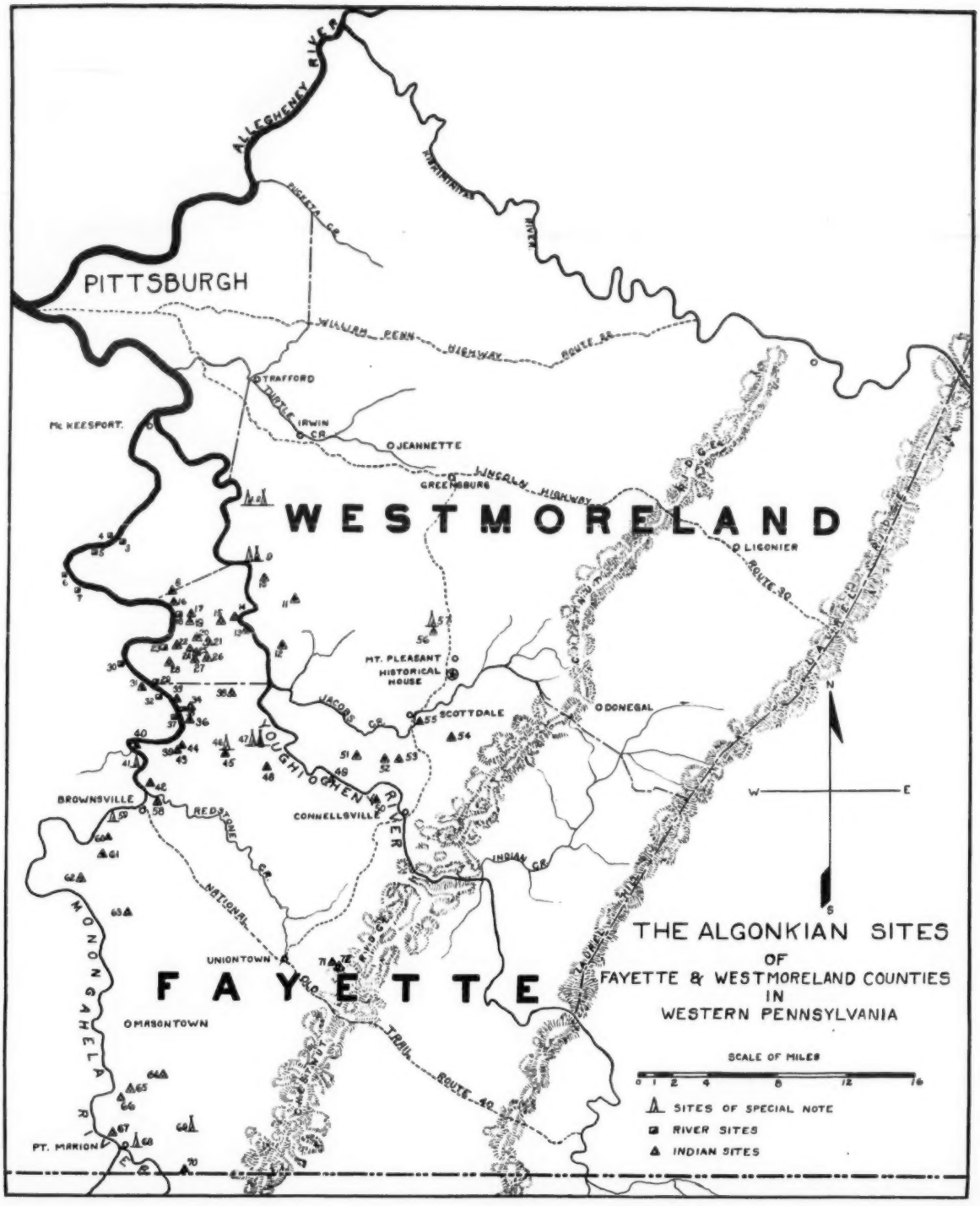
Resolutions adopted June 9, 1931, at a special meeting of the Executive Council held in the superintendent's office at the Historical Building:

It is with deep regret that the Council of the Minnesota Historical Society accepts the resignation of Dr. Solon J. Buck as secretary and superintendent of the Society. The sixteen years under his leadership from 1915 to 1931 have seen such an expansion of the Society's service to the State, such an increase in its membership and in its collections and library as to constitute a refounding of the Society.

Wherever the name and work of this Society are known within the state and far beyond its boundaries, citizens of Minnesota and the world of scholarship are his debtors. For these years of exacting, conscientious and constructive labor and planning we would record our grateful appreciation to Dr. Buck.

As he goes to his new labors he may rest assured that he carries with him the heartiest good wishes of the Minnesota Historical Society for his happiness and success.

Be it resolved that a copy of these resolutions be entered on the minutes of the Council and also transmitted to Dr. Buck by the President of the Society.


ALLEGHENY RIVER
PITTSBURGH
WILLIAM PENN HIGHWAY ROUTE 22
TRAFFORD
TURTLE CR
IRWIN
McKEESPORT
JEANNETTE
GREENSBURG
LINCOLN HIGHWAY
WESTMORELAND
LIGONIER
ROUTE 30
MT. PLEASANT
HISTORICAL HOUSE
JACOBS CR
SCOTTDALE
DONEGAL
YOUGHIOGHENY RIVER
BROWNSVILLE
REDSTONE CR
CONNELLSVILLE
INDIAN CR
NATIONAL
MONONGAHELA RIVER
UNIONTOWN
FAYETTE
MASONTOWN
TRAIL
ROUTE 40
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THE ALGONKIAN SITES
OF
FAYETTE & WESTMORELAND COUNTIES
IN
WESTERN PENNSYLVANIA
SCALE OF MILES
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SITES OF SPECIAL NOTE
RIVER SITES
INDIAN SITES

PLATE I.

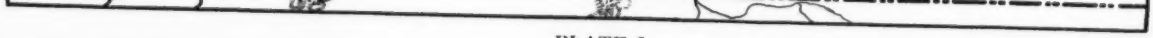

PLATE I.

KEY TO MAP

1. McGrew.
2. Fullerton.
3. South Elrama.
4. Elrama.
5. Bunola.
6. Courtney.
7. River View.
8. County Line.
9. Sewickley.
10. Mound.
11. Turkeytown.
12. Smithtown.
13. Household.
14. Budds.
15. Nicols.
16. Tomers.
17. Jones.
18. Shepplers Lost.
19. Finleys.
20. Lemty.
21. Rankin.
22. Jones.
23. McMahon.
24. Cunningham.
25. Piersols.
26. Sheppler No. 2.
27. Sheppler No. 1.
28. Fishers.
29. Gibsonton.
30. McKean.
31. Speers.
32. Dunlevy.
33. Lynn Farm.
34. Lynn No. 1 and No. 2.
35. Fayette City.
36. Hough No. 1.
37. Allenport Hill.
38. Rich Hill.
39. Deiterich.
40. Newell.
41. Steels.
42. Albany Point.
43. Hough No. 3.
44. Hough No. 2.
45. Browns.
46. Francis.
47. Fullers.
48. Star Junction.
49. Dickerson Run.
50. Old Hill Farm.
51. Strickler.
52. Sutton.
53. Owensville.
54. Menonite Cemetery.
55. Scottdale Site.
56. Tedrow Farm.
57. Sumie Farm.
58. Brownsville.
59. Crawfords or Grist.
60. Stewarts.
61. Dearth.
62. Hackney.
63. Hogsette.
64. Old Frame.
65. Second Picture Rocks.
66. Picture Rocks.
67. Point Marion.
68. Point Marion.
69. Morgan.
70. Boundry.
71. Cool Springs.
72. Beasons.

Algonkian Sites of Westmoreland and Fayette Counties, Pennsylvania

By Robert M. Engberg.

Supplement by George S. Fisher.

INTRODUCTION

Before the season opened it was hoped that one or two promising sites could be investigated rather intensively, but since that was to be impossible, it was decided to continue the survey where it had been stopped the year before. In fact the reconnaisance of 1929, while yielding much of importance, did not cover the two counties adequately, and this was proposed for the 1930 expedition.

It may be recalled that during the previous season two major sites were explored. [1] These were Fuller's Hill near Perryopolis and the Fullerton Farm near Rilton. Whenever necessary, a comparison of the characteristics of these sites and of those investigated this year will appear. The comparative data that has served to identify the various sites of Westmoreland and Fayette Counties as Algonkian will also be dealt with. No tribal designation has been possible, but it is hoped that a division into smaller units will be possible from the investigation of early documents.

The work of this year differed from that of 1929 principally in the fact that no one site claimed our attention for any length of time. If more of the Indians' life was revealed on one location, it was merely good fortune and not the amount of work or time expended. This was necessary to complete the program before us. But the investigation, however short in one place, did indicate rather conclusively the relative merits of the sites. Some of these should be searched more thoroughly. Ideally all sites should be uncovered in order to reconstruct our Indian history, but there are those that must be put aside in favor of the more promising.

A thorough survey which would have included all sites in Westmoreland and Fayette Counties would not have been possible in the time alloted, nor would it have been greatly

1. *Western Pennsylvania Historical Magazine*, Vol. 13, No. 2, 1930.

to our interests. This territory was covered by Indian villages large and small, and to investigate all of them would require time and expense. It was of primary importance to locate the largest centers of habitation, and the author firmly believes that this has been done. Whatever sites remain, in view of the exhaustive inquiries, must be of a minor character and probably related culturally to the larger villages.

Indian settlements have been found as far south as the West Virginia border and north to the limits of Westmoreland County. Chestnut Ridge rises abruptly to the east and effectually stopped any large Indian movements. On the western margin, which is on the eastern side of the Monongahela River, there are sites in abundance. The supposition would be that the Indians occupying the two counties lived and traded with those of the territory to the north, west, and south. Such indeed is the case. Potsherds and surface indications from Indiana County, Pennsylvania, and from the upper Monongahela River in West Virginia—that is, to the north and south of the area in question—have convinced the author that the territory of the Westmoreland and Fayette Indians must be greatly extended. The same opinion is derived from many burial objects that the author has seen from Greene, Washington, and Allegheny Counties which lie to the west and northwest. The investigations in Westmoreland and Fayette Counties, it is hoped, will be the nucleus for a further Upper Ohio Valley research.

It is regretted that the river bottom sites of the two counties could not be explored, but that day is past, due to the development of mills and coal works along the more ideal waterfronts. However, Mr. George Fisher of Finleyville, who has been actively associated with the work of the last two seasons, had the interest and foresight years ago to gather data on these numerous locations. The writer has questioned him carefully on these, and also on some that remain in Washington and Allegheny Counties on the Monongahela River, and will include his notes as addenda to this report.

Many of the shell forms that have been recovered have been studied by Dr. S. T. Brooks of the Carnegie Museum, Pittsburgh. Some of the finer specimens are of

undoubted Gulf of Mexico origin, which is evidence at least that trade relations existed with the Indians far to the south. Actual traversing of this southward course by the Indians of Southwestern Pennsylvania is not implied, nor is it probable, but they nevertheless must have had some knowledge of their kinsmen on the Gulf Coast. The same trend of thought applies to the discovery, in 1929, of a number of hammered and rolled copper objects, for copper is not native to the country. These were not as prominent as have been the gulf forms, but they nevertheless indicate some commerce and probably knowledge of Indian groups some distance away. It may be added here that nothing of a post-Columbian nature has been found anywhere. Perhaps the source of this native copper was Keweenaw Point in the Upper Michigan peninsula, although some very small native copper deposits are now known to exist in the eastern part of the United States. [2] Whether or not the pre-Columbian Indians knew of these is questionable. It is possible that the copper may have been derived from the glacial drift which lies north of the area, but this cannot be substantiated. However, it is known that the Lake Superior ores were not strangers to the Indians of the lakes region even before the coming of the French, and specimens from there may quite conceivably have drifted from hand to hand into the Upper Ohio Valley. We are confident at least that there was an extended trade with the south, and in view of this, relations with the Indians of the north-west would not be impossible nor even improbable.

There is also the possibility that the aborigines of this territory had contacts with the Iroquois, for certain Iroquoian characteristics have been observed. However, the main body of the data points to a well integrated Algonkian background. Historical sources inform us that at a time early in the white colonization of Canada and the

2. Dana describes native copper as occurring throughout the red sandstone region of the eastern United States. It is found sparingly in Massachusetts and Connecticut, and more abundantly in New Jersey. Fair sized deposits are known at Ducktown, Tennessee; Cornwall, Pennsylvania; and at Franklin, New Jersey.
Edward S. Dana, *Textbook of Minerology*, pp. 353-354. Revised ed. 1922, John Wiley and Sons, Inc., New York. Chapman and Hall, Ltd., London.

eastern states, the Algonkians who ranged about the Iroquois territory were almost completely subjugated by them.[3] But the investigation of the Indian sites of Westmoreland and Fayette Counties has revealed comparatively little that was suggestive of the Iroquois. Therefore we may assume for the present that our Algonkians antedated the period of oppression. In other words they lived in Western Pennsylvania before 1620 or thereabouts. We may be reminded again that not one colonial trade article has been found, which gives greater authority to the placing of an early date on the sites investigated. Wherever the Jesuits and traders went, there will be found trinkets which they gave or traded to the Indians and which in the course of events became scattered among the people. As to the maximum age of these sites nothing can be said at the moment.

While the aboriginal culture of Westmoreland and Fayette Counties has been designated as Algonkian, there are yet a number of features that do not correspond to the Algonkian patterns of Arthur C. Parker and Alanson Skinner. But these need not necessarily be regarded as alien. In some cases they may mean contact with the Iroquois or other groups. In others they can be quite logically explained as natural variations and developments within the group. The Algonkian people were widespread and of necessity lived in differing geographical areas. As a result they must have been out of touch with most of their blood kin, which, however, would not preclude their retention of most of the basic forms of an original mode of life. Parker and Skinner gathered their information from Algonkian sites in New York, Eastern Pennsylvania, and the coastal region, and we can therefore interpret much of the known difference not otherwise accounted for, as that of normal local development.

With the subject whose larger ramifications depend on a minute detail, there is always the problem of presentation. There will be those interested only in the broader significances and summary results, while others will look immediately for the data by which these conclusions have been reached. While both viewpoints are inevitably present in the mind of the investigator as inseparable parts of one problem, it has seemed best for the purpose of this paper to isolate the two categories as much as possible for the convenience of the reader.

3. The *Jesuit Relations*, of about 1620 on.

BURIALS

FINLEY'S HILL—Near Webster, Pa.; Westmoreland County.

Burial No. 18. (Fig. 1) An adult male whose height was approximately 69 inches. The body had been placed in a pit on the northeast slope of the hill away from the hill top village. Although on the side of the hill, the pit, which was just large enough to accommodate the body, was dug so that the deceased could lie horizontally. Accordingly the depth from surface to feet was 24 inches, and to the head 19 inches. The pit was 30 inches wide and 39 inches long. The body headed South 75 degrees East and faced north.

This burial had quite evidently been disturbed. The right tibia and fibula, and the left femur, tibia, fibula, and pelvis were missing, while much of the remaining lower body was out of normal order. However, since the upper portion was untouched, we may suppose that the digging was done by farmers while prospecting for sandstone. Much of the hill top has been treated in this manner.

The ground above the body was a heterogeneous mixture of mussel shells, charcoal, animal bones, pot sherds, and fish scales. No signs of a concentrated fire were apparent.

A fine grained sandstone pipe, wedge shaped at the bottom and bearing roughly incised drawings on the two broad sides, was uncovered at the mouth. One of the drawings is suggestive of a straddling man. The pipe is 2 inches long, and at the top is ⅞ inch by 1⅛ inches. A dark tobacco stain is visible in the bowl which is uniformly drilled.

An antler tip, 6¾ inches long and ¾ inches wide at the base, which had been fire hardened to a rich ebony black lay at the side of the right femur. (Plate V).[1] Spiral scratches on its entire lower surface indicate that it was used as a drill at least, although its position at the side of the leg suggests that it may also have been a personal weapon. The inutile end of the piece was only roughly finished as is the case with most of the antler and bone implements found in this territory.

A well cut bird bone bead, 1½ inches long, was found at the mid point of the right humerus. This bead may well have been worn as an ornament around the biceps, but it is equally possible that it was placed in the grave during the burial ritual.

Burial No. 19. (Fig 2) An adult male of about 66 inches height. The face was west and the body headed South 30 degrees East. The knees were flexed to within 6 inches of the chest. The left hand was flexed under the head, while the right hand was in front of the face. The pit which was 32 inches long and 20 inches

[1]The effigy pipe shown in this figure was found in 1929.

wide was dug out of the sandstone ledge that outcrops on the southwest side of the hill to a depth of 22 inches. The hole for this grave was bounded by vertical sides, and only as much stone as was necessary was dug out. The bones lay on clean sandstone.

Whereas there was no evidence of a burial fire with the other skeletons on Finley's Hill, the upper side of the head and face of Burial No. 19, and in particular the right supra-orbital area and the right temple, bore unmistakable marks of fire.

A used antler tip, the type implement probably used in chipping flint, lay at the right side of the occiput. A rough discoidal without perforation was 6 inches in front of the face and next to the right hand. It is 1½ inches in diameter.

Burial No. 20. An infant less than a year old lay flexed at the bottom of an irregularly round pit which was about 6 feet in diameter and 18 inches deep. The skeleton headed South 30 degrees East. A ground hog had burrowed into the burial taking away with it the skull and the upper part of the left side. However, the feet, legs, pelvis, lower vertebrae, and right hand and arm were left intact. No burial objects were found, although it is possible that the ground hog had also taken with it something from the usually productive part of the body. In the pit was a general mass of refuse with shells predominating. Over two hundred mussel shells were scattered through the pit. There was also much ash and charcoal but the skeleton was not charred.

The fact that the pit was so much larger than that necessary to bury even an adult, indicates that the child was buried in a refuse pit. The character of the debris which individualized the mussel shell more than the typical camp refuse did, also points to this conclusion.

Burial No. 21. A young female of about 18 years lay in a pit on the eastern slope of the hill. The skeleton was covered by 12 irregularly shaped sandstone slabs which averaged 8 inches by 8 inches. These had been placed directly on the body covering, which the body presumably had, and by their direct weight had crushed the skull and in fact even the long bones. The pit floor was horizontal, its distance from the surface being at the pelvis 16 inches, and at the head 12 inches. It is of some interest to note that the burials on Finley's Hill were all on the periphery of the hill top and that when they were buried on a slope the heads occupied the shallowest part of the grave, and therefore pointed away from the hill. The length of the pit was 2 feet 10 inches while the width was 2 feet.

The skeleton was heading South 30 degrees East and faced North 60 degrees West. The knees were normally flexed to the breast with the legs superimposed. The left forearm stretched under the left leg and the hand curved around to grasp it. The right hand was flexed to the face but pointed away from it. The

approximate height of this individual was 5 feet 4 inches.

The only artifact encountered in the digging of this grave was a bead made out of bird bone, 1 inch in length. It was found in the dirt above the sandstone slabs and seemed to have no direct relationship to the burial, although it may have been the last minute inspiration of one of the mourners. There was not much shell, sherd, nor other typical camp refuse with this grave.

FRANCIS HILL—near Perryopolis, Pa.; Fayette County.

Burial No. 22. (Fig. 3) An infant of about 3 years located on the north edge of the flat hill top. The body, after being covered with dirt, had been marked with a sandstone slab which was roughly rectangular and was 2½ feet long and 1 foot 10 inches wide. The slab lay horizontally and was 11 inches from the surface. The main axis of the stone was South 30 degrees West which proved to be about the position of the body, it being South 15 degrees West. The face was to the north. The grave was dug in the very resistant blue clay that tops the hill to a depth of 20 inches. It was 16 inches long and 11 inches wide.

The infant lay on its back with the left leg flexed to the sternum but with the right leg only partially flexed. The left hand was flexed to the sternum while the right hand was resting at the neck.

Around the neck and under the chin was a necklace consisting, in the order named, of:

2 drilled fox teeth; 1 drilled cow elk tooth; 1 drilled young bull elk tooth; 1 drilled shell pendant—1 inch long and pear shaped; 1 drilled fox tooth; 1 slate medallion.

The medallion was not drilled as were the other beads but it was notched, giving it an arrow head effect. It was 2 inches long and 1⅛ inches wide at the top.

Within the skull and beneath it were 33 drilled cylindrical shell sections. From their position it is presumed that they were hair beads, those within the skull having fallen in when the skull finally broke. Each cylinder had been drilled separately and had been cut to an average thickness of 1/18 inch. A few were somewhat thicker, but the diameters were all ¼ inch.

Burial No. 23. (Fig 4) Also located on the north edge of the hill was a very heavy boned aged male. Only nine of his lower teeth remained and absorption had taken place throughout the toothless area. He was approximately 5 feet and 7 inches tall. The body was heading South 30 degrees East and the face was to the northeast.

Both legs were sharply flexed to the chest. The left arm was half flexed to the left knee while the right arm was extended straight and lay between the legs. The burial pit was 34 inches long and 22 inches wide. It descended to the usual depth of 38 inches. The body lay on the undisturbed blue clay that is char-

acteristic of Fuller's Hill as well. Much of the pure clay that had been thrown out in making the grave, was returned in almost as pure condition.

No artifacts were found with the body itself, but about 8 inches above were scattered three bird bone beads, a crude hammer stone, and a piece of paint. There was a heavy section of charcoal at the feet which we may presume is evidence of a ceremonial fire during interment. In this same area was a concentrated mass of snail shells which, however, were not burned. Bear foot and heel bones were uncovered on the same level as the beads and hammer stone.

Burial No. 24. Located on the hill top near the drop on the west side was a broken sandstone slab covering a small oval pit. No bones were found but its character as a grave is attested by the slab which was of the type usually used in stone burials, by the oval shape of the pit, and by the fact that the stone had broken in the center and fallen 6 inches below its former level. Refuse pits are normally round and are not covered with slabs. The significance of the broken stone is that it must necessarily, from its altered position, once have covered a cavity in the ground. Substantiating this is the 2 inch layer of fire clay that had also broken and dropped with the stone. The slab was roughly worked at the corners and reconstructed measured 2 feet 9 inches in length by 1 foot 10. The long axis was East-West.

STEELE'S HILL—near Newell, Pa.; Fayette County.

Burial No. 25. An adult female of about 35 or 40 years. The body was lying on its back, but the knees were flexed to the side of the right arm which was flexed to the face. The left arm was slightly bent but extended between the legs. The position of the skeleton was South 15 degrees East and it faced east. The pit, which was on the edge of the encampment as was that of *Burial No. 34.* (Fig. 5), the other Steel Hill skeleton, measured 36 inches in length, 17 inches in width, and 21 in depth. The 5 foot 3 inch individual had been squeezed into the pit prepared for it, for the undisturbed clay touched it on all sides. Because of the close quarters, the feet had been thrust out of their normal order with the lower legs.

A perfectly made slender bone awl 6 inches long which had been made from the leg bone of a deer lay just behind and at the same level as the left elbow. The only other article found in direct relation to the skeleton was a broken shell pendant which was at the left heel. A deer scapula and the proximal section of a deer humerus lay 3 inches over the mid section of the left femur, but it is problematical whether we may associate these with the skeleton. Charcoal pieces, some an inch long, were found generally over the body but more particularly at the feet which, however, bore no signs of fire.

Scattered through the dirt above the body were a greater number of artifacts than are usually found in a representative refuse pit, and for this reason appear to be of significance to the burial. They were as follows:

1 crude antler "flint chipper"; 1 bone awl—2½ inches long; 6 bird bone beads ranging from ½ to 1¼ inches in length; 1 drilled marginella apicina bead—a shell from the Gulf Coast of Florida; 1 piece of a well fashioned sandstone discodial; 3 drilled fish spine beads; 1 triangular flint point—¾ inch long; 2 pieces of much used paint; 1 turtle pelvis, highly polished—Mr. Fisher has found these on a number of occasions at the face of a skeleton, as if used as a hair ornament; 1 complete pipe stem of bone—1¼ inches long; 1 broken shell pendant—⅜ inch wide and probably ¾ inch long before it was broken.

Probably of lesser significance, but nevertheless of possible importance, are the following articles found through the same upper area:

Pieces of worked turtle shell probably from a cup; fragments of bone beads; fish scales; section of a small shell tempered, cord marked pot, perhaps a child's plaything.

Burial No. 34. (Fig. 5). An adult female of about 5 feet 5 inches height rested 58 feet from Burial No. 25 on the same edge of the village. It was headed east and faced the northwest. The left foot was crowded because of the dimensions of the pit, the right was normal. The legs were flexed as usual, while the arms were partially bent so that the hands met at the pelvis. The burial pit was 46 inches long, 30 inches wide, and 21 inches deep. The sides were perpendicular and the bottom was horizontal.

At the back of the neck 68 apicina shell beads, which have been identified as a specie from the Gulf Coast of Florida, lay in no apparent order. It is probable that they were hair beads. Charcoal was concentrated along the vertebrae and at the hips, but no signs of the bones having been burnt were discernible.

GILLESPIE FARM—near Brownsville, Pa.; Fayette County.

Burial No. 26. The skeleton was that of an adult male of about fifty years who had without doubt been of a massive build. It was approximately 5 feet 8½ inches in height. The skeleton was heading South 60 degrees East and was facing South 60 degrees West. The knees were flexed sharply to the chest with the heels at the pelvis. The left arm was bent, the elbow resting on the left knee while the left hand was under the head. The right arm was flexed to the front of the chest allowing the right hand to rest at the lower jaw.

The pit which was cut down from a flat surface was 34 inches long and 25 inches wide, but at the head it was 19 inches deep, or 4 inches above the depth at the pelvis. The lower 5 inches of the pit had been dug out of the shaly sandstone that caps the hill.

Because of the sandy nature of the hill the skeleton was well preserved which may also account for the partial preservation of a small woody mass under the left pelvis. No form could be reconstructed but it is certain that it consisted of wood. With this were several kernels of charred corn and a small rodent incisor, but as to the meaning of this combination under the pelvis we can only conjecture. The skeleton showed no signs of having been burnt, but small pieces of charcoal were prominent at the feet and in the cervical and right scapular areas.

Burial No. 27. The skeleton was that of a woman, and judging from the ossified sagittal suture and the great absorption of the jaws she was of considerable antiquity. Her height was about 5 feet.

As with Burial No. 26, the pit had been dug out of the bed rock. The depth was 16 inches of which 3 inches was hewn out of the stone, and the length and width were 4 feet and 2½ feet. This is one of the few instances where a burial pit is more than large enough to accommodate a folded up body. The skeleton headed South 45 degrees East and faced the West.

The legs were flexed to the chest with the heels at the pelvis. The position of the right foot on a horizontal plane, and normal in all respects, indicates that the right leg was flexed upward at burial and only reached its ultimate position as a result of decomposition and upper earth pressure. The right arm was bent at right angles with the hand in front of the body, while the left arm was flexed sharply to bring the hand up to the mouth. The right hand was opened at length and pointed toward the feet. The left hand was also opened at length, lay under the jaw, and pointed toward the right shoulder blade.

A hollowed antler tip arrow point, directed toward the breast, lay at the mid point of the left forearm. A small piece of paint was found among the right ribs. Charred kernels of corn were scattered in the sternal and scapular areas. (Fig. 12) A fragment of deer jaw and a beaver jaw lay directly in front of the left forearm. On the left wrist was found a fish bone, highly polished. A small bird bone bead was under the back of the head. Of particular interest, because of its similarity to the paint burial discovered at Fuller's Hill in 1929, was the red mottled stain on the posterior sides of the pelvises and sacrum. The custom of burying quantities of paint with a body has not been frequently encountered in this part of the country.

Burial No. 28. (Fig. 6.) This was an aged male of 5 feet 10 inches, a height above the average. The grave differed from the other two found on the Gillespie Farm in that it was not dug out of the sandstone bed rock. The floor, however, was on the stone. The pit was 15 inches deep, 53 inches long, and 30 inches wide.

The body headed North 15 degrees East and faced Southeast. Both legs were flexed to the chest when found, although at burial the legs were probably bent upwards if we may depend on the lone evidence of the normal horizontally placed feet. It was only subsequently that the feet fell to one side if our judgment is correct. During the years the body lay on its back as it had been placed. The right arm was slightly curved to the pelvis, while the left was stretched at length between the legs. Both hands were clenched.

Two inches in back of cervicals 5, 6, and 7 were 4 drilled bear tusk beads which undoubtedly once served as a necklace. On the proximal end of the manubrium (sternum) was a finely worked and greatly polished turkey bone bead which was ½ inch long Perhaps this bead was part of the same necklace, but in view of its isolation from the rest we may well suppose that it lay there in another connection.

A number of objects were found in the dirt above the body and in no apparent contact with it, but from their various peculiarities they were rendered conspicuous. They follow: several pieces of worked paint; a number of pieces of worked and baked clay; half a dozen broken beads; several colored river pebbles quite foreign to the hill top; one bird bone bead; one bone drill, 2½ inches long; one large rim sherd, measuring 5 inches by 2 inches, black, shell tempered, and cord marked, the size of which practically precludes accidental interment; many fish scales; many mussel shells; and a dozen or so charred corn kernels. As it is not a property of typical camp refuse to find objects in the dimensions of these, we may with some assurance believe that they were there in the interests of the deceased.

W. P. Crawford Farm—Luzerne Township, Fayette County, Pa.

Burial No. 29. (Fig. 7). An infant of about a year and a half lay in this grave covered by a rough slab of schistose sandstone at a depth of 7 inches. The pit itself was 20 inches deep, 20 inches long, and 15 inches wide. The body headed South 75 degrees East, lay on its back, and faced upward. The knees were flexed to the northeast, while the arms were straight at the sides.

Arranged around the neck, and lying on the breast and abdomen, was a double strand necklace consisting of 418 small shell disc beads, 4 apicina shells rubbed for stringing, 1 small bone bead, and a drilled conch type shell that was derived from the Gulf of Mexico. The conch and apicina shell beads had been strung together at the base of the lower strand and rested near the end of the spine. Like sizes of the shell discs had been grouped together forming a graduated series, the largest of which appeared at the left side of the neck. (Plate V).

The conch shell has been tentatively identified as of the genus Fasciolaria although it also resembles Busycon. In either case it is native to the Gulf of Mexico or the east coast of Florida. The shell was drilled at the tip of the core. It was 2⅝ inches long and 1¼ inches through the widest section.

The apicina shells had in every case been rubbed open near the top to allow for stringing.

Each shell disc had been drilled separately, judging from the inequalities of the borings. Striations were apparent both on the outside of the beads and in the borings. The diameter of the smallest was 3/16 inch, and of the largest ⅜ inch. The longest was ¼ inch while the shortest was only 1/32 inch in length.

The bone bead was made of bird bone and was 3/16 inch long and ⅛ inch wide.

An unworked mussel shell lay concavely upward under the skull, which in itself would seem to be of little significance, but it so happened that the skull of Burial No. 30 which rested only 20 inches to the northeast also lay on a mussel shell in a similar position. It seems quite probable that these two burials, exhibiting the same peculiarity as they did and being as close as they were, present a definite burial custom. However, these were the only occurances of the kind among the thirty-four burials explored in the two seasons.

Burial No. 30. Twenty inches to the northeast of Burial No. 29 was another infant of about 2 years, buried at a depth of 9 inches and covered by a slab of sandstone, roughly shaped.

The skeleton was heading South 75 degrees East which is, interestingly enough, the same orientation as that for Burial No. 29. However, it faced the west and lay on its left side. The knees were flexed to the breast with the arms straight to the sides. The burial pit was 19 inches deep, 18 inches long, and 13 inches wide.

At the front of the neck and downward toward the hips were 24 apicina shell beads in no apparent order. The first supposition was that they were hair ornaments, for the rubbings at the tops of the shells were much smaller than those usually found on necklace beads, and could not have been strung with anything coarser than a hair. However, the finding of a number of the beads in the hip region seriously affected the validity of this theory, for it is doubtful whether the hair of such a young child would even come down to the front of the neck. In the face of such objections we must consider other alternatives. Perhaps the shells had formed a necklace, even with the holes as small as they were. Then too, they may have been the ornaments of a covering that was placed on the child at burial. Finally, it is altogether possible that the beads were placed loosely in the grave by some

well-wisher. The presence and possible connotation of the mussel shell under the skull has been commented on in the description of Burial No. 29.

EMMERSON DEFFENBAUGH CAMP—Nicholson Township, Fayette Co., Pa.

Burial No. 32. (Fig. 8). The grave, which was covered by a sandstone slab at 11 inches, was that of a 5 year old child heading South 15 degrees East. The stone had been placed over a rather hollow grave for it was broken in many places and had caved in at the center. Over the slab was a 2 inch thickness of burnt clay which had also fallen with the stone. This feature suggests the condition found with the empty Burial No. 24 at Francis Hill. The burnt area extended 4 feet north of the grave in a roughly oval manner, which was on the average 5 feet in diameter, and contained nearly a handful of charred beans and wild cherry seeds. The pit itself was 22 inches long, 19 inches wide, and 17 inches deep.

The legs were flexed normally to the breast. The right arm extended in a straight line to the legs, and the left was flexed at right angles to the front of the body. The mandible lay normally in front of the cervical vertebrae, but the head had been twisted around so that the occiput was at the posterior end of the mandible, and the top of the head was directed toward the pelvis. The remaining peculiarity of the skeletal position was that the right ilium (a part of the pelvis) lay under the right side of the face and was therefore 13 inches out of position. All other parts of the skeleton, even to the cervical vertebrae and the rest of the right pelvis, were in rigid order.

No ingenious explanation seems to be necessary to make clear the reason for the unique position of the skull and ilium. It will be recalled that the grave stone when found was broken and had fallen in at the center. For this to have been possible there could only have been air space between the stone and the body. Therefore to explain the head position when uncovered it is only necessary to conceive of the gradually sinking stone pivotting downward on a perhaps raised face. The completion of the settling would find the skull quite out of position. It is perhaps necessary to invoke the aid of field rodents as a contributary factor, but to conceive of the head having been severed from the body by a circumstance during life or in the business of interment is not sound, for each cervical vertebrae, even to the atlas, was in perfectly oriented juxtaposition. The skull, then, assumed its ultimate position after normal decomposition had allowed the atlas to free itself from the basilar condyles of the skull, and after the mandible by the same process had fallen away from its last connections with the skull.

Inasmuch as the lumbar vertebrae, the right femur, and the remaining unossified portions of the right pelvis were in position, the only logical explanation of the straying right ilium seems to lie in rodent activity, which probably happened before the skull reached its final position, for the ilium lay under the right side of the face.

Peculiar as was the position of this skeleton, more so perhaps was the fact that the interior of the right parietal lobe of the skull was charred. Therefore the skull was cracked and charred before being covered. It has not been unusual to find that a ceremonial fire attended the burial of an Indian, for it is significant that 8 of the 34 burials have been so distinguished, but no case claiming such a peculiarity as that now noted has been previously found. We are bequeathed two alternatives, either that the child's head had been cracked in life, or that the fire in its intensity created an abnormal pressure which cracked the skull. The fact that the burial was that of a thin boned child lends itself to the latter theory. A microscopic study is being made, but in either case the skull could have turned later to its position when found to the detriment of neither of these possibilities. The extent of the fire is attested by a fairly intensive charring over the upper exposure of the skeleton even as far as the feet.

Forty turkey bone beads lay in a double row around the waist of the skeleton. It is most probable that they were ornaments from the garment worn by the child.

CHARLES J. STEWART—Luzerne Township, Fayette County, Pa. *Burial No. 33.* (Fig. 9). An adult of about 35 years heading South 15 degrees East. It lay on its back and probably faced North 60 degrees East before grave movement had set in. When found the head had fallen backwards, but from the evidence of the heavily burnt top of the skull the original position of the head has been deduced. The left scapula and ribs were also burnt, and much charcoal was noticeable throughout the pit but especially at the head and shoulders. The pit itself was 24 inches deep, 30 inches wide, and 46 inches long, with the sides vertical and the floor horizontal on the sandstone bed rock. The length of the pit is of particular interest for it allowed the legs to be stretched almost at length, the angles between the femora and the lower legs being only 160 degrees. Except for the child, Burial No. 13, uncovered at the Fullerton Site in 1929, no other skeleton has displayed such leg form. Burial No. 13 was fully extended, and this one nearly so, but all others have been sharply flexed with the heels usually to the pelvis.

The prominence of charcoal in the pit, and its concentration over the upper part of the body, has been noted. Some shell

much disintegrated was also uncovered but was apparently not of importance to the grave ritual. One turkey bone bead, 1½ inches long, was found at the foramen magnum which faced upward, and may have been part of a neck ornament. At a height of 12 inches above both the head and feet was grouped a handful of unworked sandstone river pebbles. Not unusual in themselves but only in their segregation they seem to indicate another previously unknown burial usage for this region.

TABLE I.

Summary of Grave Data—1930

Burial	Age and Sex	Height	Orientation				Associated Objects
			Position	Face	Skull	Side Down	Members burnt	
No. 18 Finley	Adult male	5′ 9″	Flexed	North	S75E	R	None	Incised sandstone pipe at the face. Antler tip awl at side of right femur. Bird bone bead at midpoint of right humerus.
No. 19 Finley	Adult male	5′ 6″	Flexed	West	S30E	L	Right supra-orbital and temple.	Antler flint flaker at right occiput. Sandstone discoidal at the face.
No. 20 Finley	Infant of less than a year.		Flexed	West	S30E	L	None	None
No. 21 Finley	Female of about 18.	5′ 2″	Flexed	N60W	S30E	L	None	Skeleton covered by 12 rough sandstone slabs.
No. 22 Francis	Infant of about 3.		Flexed	North	S15W	Back	None	Covered by a sandstone slab. Necklace consisting of fox and elk teeth, a slate medallion, and a shell pendant about the neck. 33 drilled shell "hair" beads on and under skull.
No. 23 Francis	Aged male	5′ 7″	Flexed	NE	S30E	R	None	Three bird bone beads. A hammer stone. A piece of paint.
No. 24 Francis			Body disintegrated					Sandstone slab over the grave pit.
No. 25 Steele	Female of 35 or 40.	5′ 3″	Flexed	East	S15E	R	None	Bone awl at left elbow. Broken shell pendant at left heel. In the dirt above the skeleton were: 6 bird bone beads; 3 fish spine beads; 1 bone awl; 1 complete bone pipe stem; 1 crude antler flint flaker; 1 drilled apicina shell; 1 triangular flint arrow head; 2 pieces of much worked paint.
No. 34 Steele	Adult female	5′ 5″	Flexed	NW	East	R	None	68 Drilled apicina shells at the back of the neck. They were probably a hair ornament.

No. 26 Gillespie.	Male of about 50.	5'½"					None	None
No. 27 Gillespie.	Aged female	5'	Flexed	West	S45E	L	None	A hollowed antler tip arrow point at the midpoint of the forearm. Charred kernels of corn at the shoulders. A bird bone bead at the back of the neck. A small piece of paint lay among the right ribs. The pelvises and sacrum were stained from red paint.
No. 28 Gillespie.	Aged male	5' 10"	Flexed	SE	N15E	R	None	4 drilled bear tusks at back of neck. 1 turkey bone bead on the sternum.
No. 29 Crawford.	Infant of about a year.		Flexed	Up	S75E	Back	None	Covered by a rough slab of sandstone. A double strand necklace of 455 small shell discs, 4 apicina shells, 1 bone bead, and a drilled conch shell was arranged around the neck and on the forebody.
No. 30 Crawford.	Infant of about 2.		Flexed	West	S75E	L	None	Covered by a rough slab of sandstone. 24 apicina shells lay at the front of the neck and downward toward the hips. Probably a dress ornament or a necklace.
No. 31 Dunlevy.	Juvenile of about 11.	3' 10"	Flexed	West	East	L	None	Covered by a sandstone slab.
No. 32 Deffenbaugh.	Infant of about 5.		Flexed	SW	S15E	R	Left parietal and inside of right parietal. Mandible. Left elbow and pelvis. Ribs. Fingers and toes.	Covered by a sandstone slab. 40 turkey bone beads lay in a double row around the waist. Probably a dress ornament.
No. 33 Stewart	Infant of about 5.		Only partially flexed. Upper and lower leg formed angle of 160°.	N60E	S15E	Back	Top of skull. Left ribs and scapula.	One bird bone bead at the neck. River pebbles arranged over the head and feet.

POTTERY

Pot sherds are not, of course, as valuable as complete pots in the description of the pottery of a region, but it is often possible to reconstruct pottery types from them. Therefore, since it was expected that few complete pots

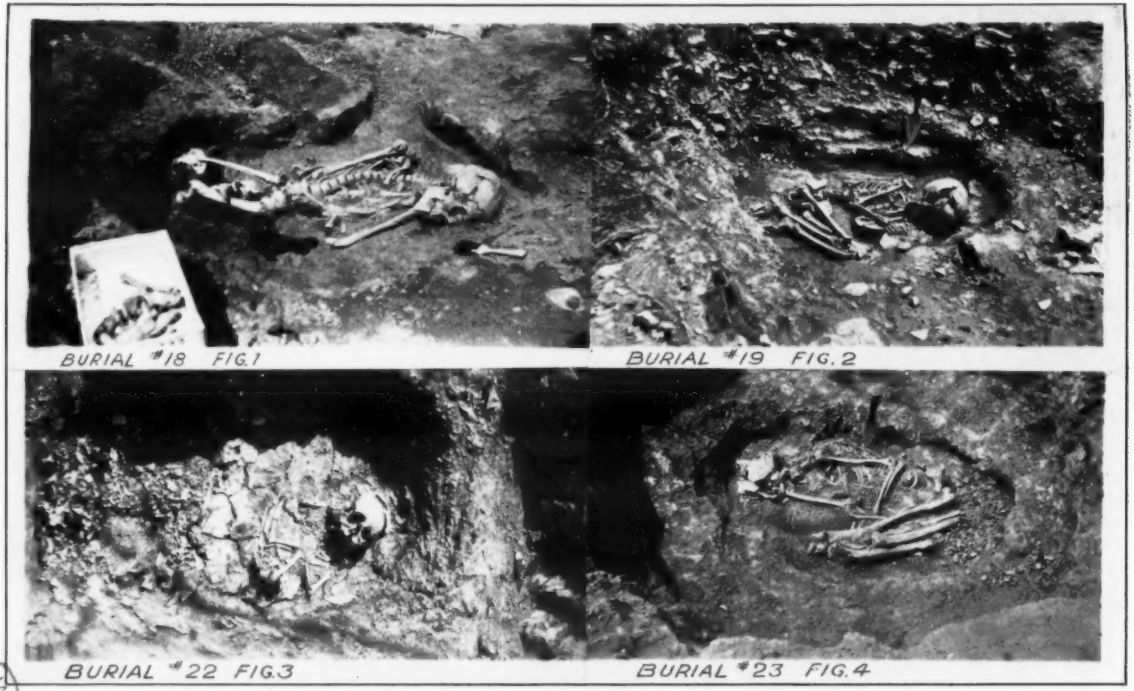

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PLATE II.

BURIALS.

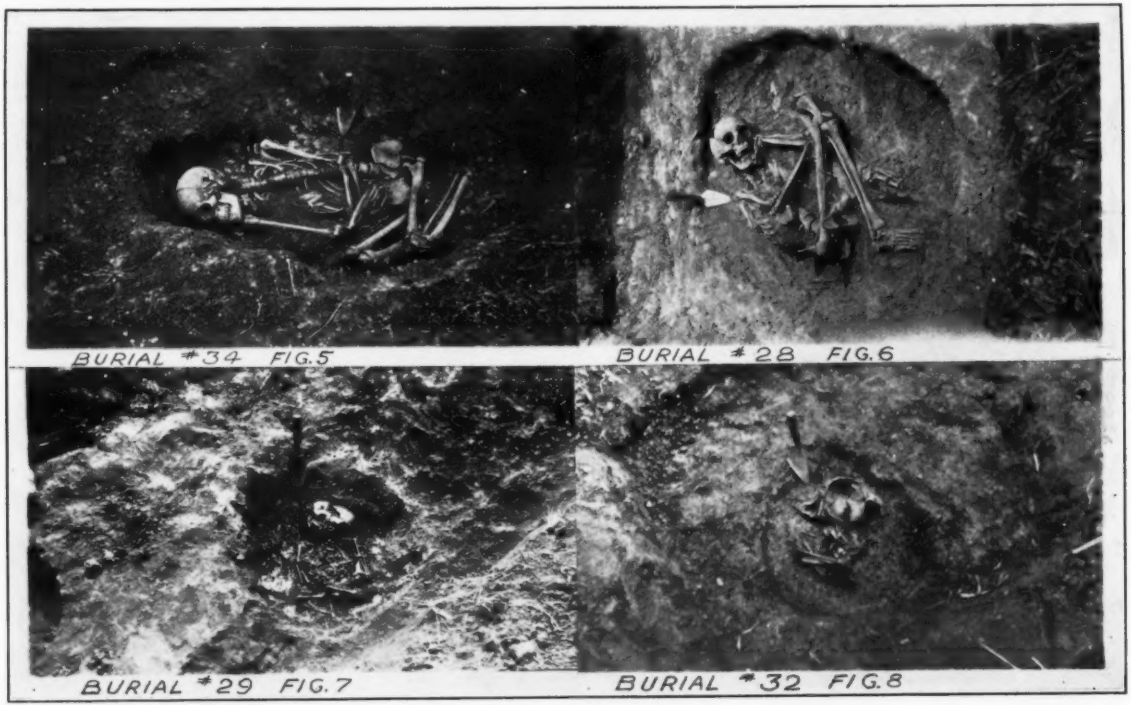

PLATE III.

BURIALS.

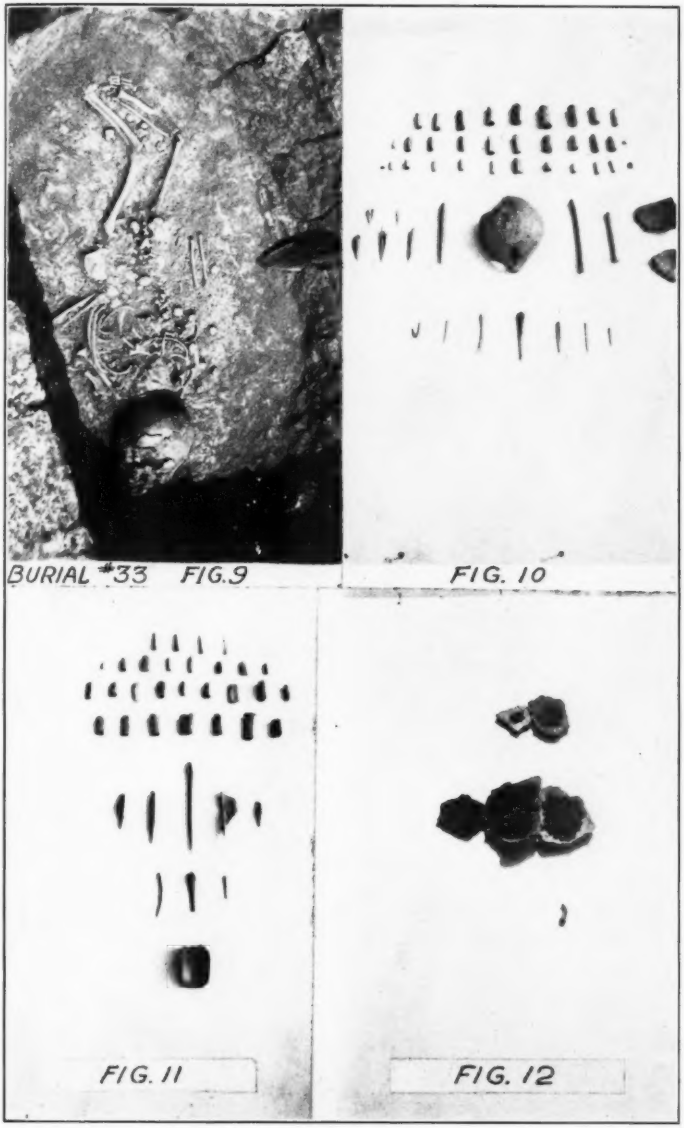

PLATE IV.

Figs. 10 and 11 show beads, awls, pipe-stems. The large object shown in Fig. 10 is the pendant referred to on page 167 of the text. Fig. 12.—Charred vegetable remains.

PLATE V.

PIPE BOWL, NECKLACE, WORKED ANTLER TIP.

TYPE POTTERY VESSELS
THIS EXHIBIT SHOWS TYPICAL VESSELS OF BAKED CLAY MADE BY THE IROQUOIS AND ALGONKIN TRIBES OF PREHISTORIC NEW YORK. THE DIFFERENCES IN FORM AND DECORATION ARE APPARENT. THE ALGONKIN POTS WERE RESTORED FROM FRAGMENTS BUT BOTH IROQUOIS VESSELS WERE DISCOVERED UNBROKEN IN ROCK SHELTERS. VESSELS OF THE SIZES HERE DISPLAYED ARE RARE IN NEW YORK
ALGONKIN
IROQUOIS

—Courtesy of the New York State Museum.

PLATE VI.

COMPARISON OF ALGONKIAN AND IROQUOIS POTTERY TYPES.

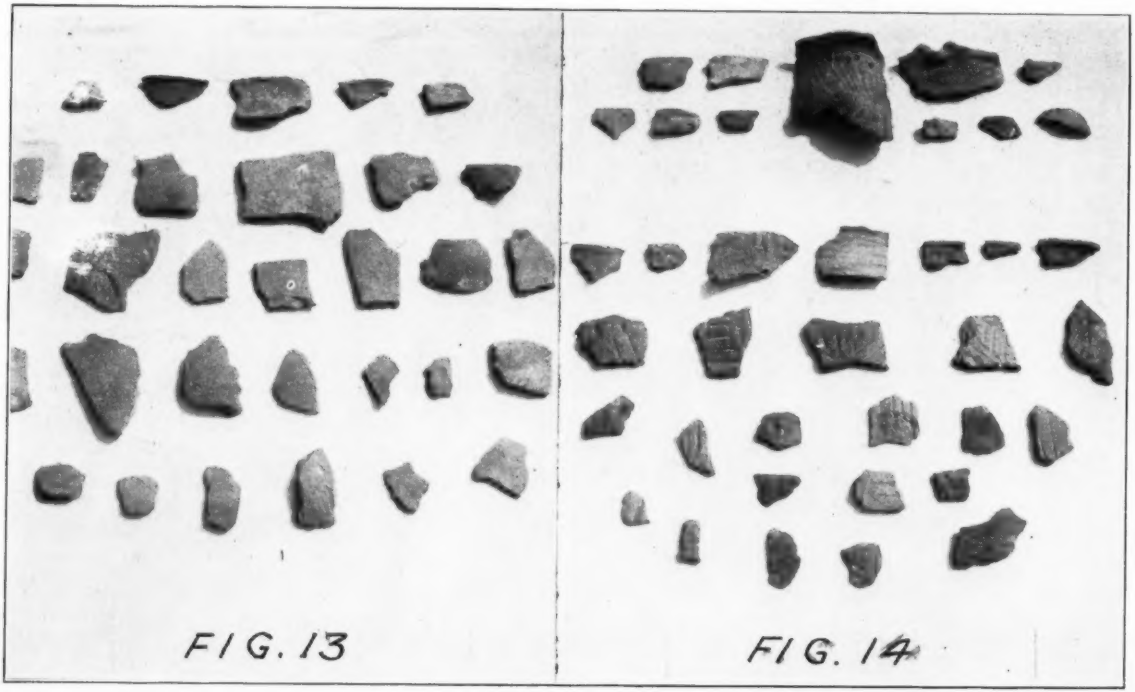

FIG. 13

FIG. 14

PLATE VII.

"CORD MARKED" SHERDS.

"STAMPED" SHERDS.

would be found, and indeed none were, all sherds were carefully preserved from the beginning of the excavation. As a result certain characteristics were observed which, despite a few exceptions, demonstrate the cultural unity of the area. These persistent characteristics, strengthened by other observations, make it certain that the Westmoreland-Fayette Indians were of the great Algonkian stock.

A community will maintain its own culture which has evolved as the result of the community's particular way of life by a natural and well-recognized conservatism. This is true of each particular of that culture which the members of the community have in common. It is true of religion as it is true of pottery, save that pottery forms are usually the result of a practical demand. Therefore did the Algonkians make a certain form of clay vessel and the Iroquois, not far distant, make another. The conclusions reached as to the affiliations of the pottery of this geographical region are of course based on the works of A. C. Parker and Alanson Skinner who describe quite thoroughly the Algonkian and Iroquois traits of the region to the north and east.

That there is a discernible tenacity to the forms of any given society is a recognized trait of humanity, but more particularly of primitive groups, and even when foreign influence is manifested it is in local terms that it gains its expression. The real and the pseudo can invariably be distinguished. Therefore when the Algonkian potter sought to emulate Iroquois pottery designs, his innate crude Algonkian technique was against him and the result was merely a degenerate pot which was neither typically Iroquois nor typically Algonkian. The motif was a poor imitation of Iroquoian style but the method was entirely Algonkian. Such external influence, although not of great importance in this region, cannot be mistaken.

Although the Indians of this region have been designated as Algonkian it does not mean that they agree in all respects with the Algonkians of Parker and Skinner. It is only in the sum total of their characteristics that the undoubted relationship is seen. To the differences, aside from those due to foreign influence, we may justifiably ascribe a separate and individual development. Within their sphere the Algonkians had vigorous ideas of their

own, and as the prehistoric Indians of Southwestern Pennsylvnia were probably not in intimate contact with their kin to the north and east (who have been the basis of this classification), it is not surprising to find that there are minor differences both in quantity and kind which, however, cling to the typical Algonkian mode.

Algonkian pottery forms as evolved by Parker and Skinner include a number of attributes that are more or less constant throughout Algonkian territory, and which characterize most of the pottery of Westmoreland and Fayette Counties. Whatever the capacity of the pot, the height is usually greater than the width. The base is gently rounded or pointed oval, while the open end is almost as broad as the greatest diameter (see Plate VI) for comparison of Algonkian and Iroquois pottery). Typical Algonkian pots have little or no collar, and a very slight rim. Frequently the design is carried up and over the rim, and down a bit into the pot itself. The decoration of Algonkian pottery vessels falls naturally into three classifications. The first and most prominent is that of the "cord marked" pots on which impressions were made before baking by means of a fabric which was probably wrapped around a paddle, or by the use of a cord wrapped stick (Fig. 13). Second in importance is the pot stamped with a wooden die or stick, frequently with variations of the chevron design (Fig. 14). Finally there is the pot marked by the edges of shells, by reeds, by the fingernails, or by turkey quills. All three of these types of decoration occur in Southwestern Pennsylvania although the "cord marked" variety predominates. It should be noted that Algonkian pottery designs tend to be stamped or impressed. Not so with the Iroquois who made his pots with a lack of effort and a free stroke, the result of which was a vessel with an incised design.

To the three types of Algonkian pottery design may be added a fourth whose distinction lies in a complete lack of embellishment and a crudity of workmanship that is surprising even from Algonkians. This type was prominent on two of the sites investigated.

The characteristics of the texture may also serve to distinguish Algonkian pottery from Iroquoian. Ground shells were usually used by the Algonkians as a tempering ma-

terial, but not infrequently were of such unequal grade that a homogeneous product was out of the question. Algonkian pottery was also unevenly burned which gave to the surface a wide variety of color.

Having noted what is characteristic of Algonkian pottery, let us see in how far the pottery of Westmoreland and Fayette Counties agrees. (Table No. II gives the correlated data of all sherds for all the sites). "Cord marked" sherds were predominant. They indicated pots large and small with diameters ranging from 3 to 20 inches. The largest ones, which were probably storage jars, were taller than they were broad, and the bottoms were gently rounded, never peaked as are so many of the Algonkian pots from Eastern Pennsylvania and New York. The sides of the majority were almost vertical and consequently there was little or no collar nor rim. Some of the smaller "cord marked" pots, however, did bulge at the center and then draw in to form a collar with a projecting rim above. Perhaps these, few as they were, demonstrate an external influence. Yet it is pertinent in this connection that no collar rims, nor even attempts at such, have been found on any of the sites investigated in the last two seasons. These are completely Iroquoian (Plate VI.) and, judging from field studies to the north and east, appear to have been borrowed by the Algonkians soon after contact with the Iriquois. The lack of this type of vessel would seem, therefore, to be further argument for the antiquity of the Westmoreland-Fayette Algonkians, and an indica-

TABLE II

DISTRIBUTION OF SHERD TYPES. 1930.

Site—	Jones	Stewart	Dearth	Sumie	Finley	Morgan	Steele	Gillespie	Francis	Point Marion	New Geneva	Crawford
Cord impression	475	59	130	186	412	28	386	54	119	35	29	167
Chevron impression				67			3					
Plain	21	243				120	21					
Incised						1						
Total Number of Sherds	496	302	130	253	412	149	410	54	119	35	29	167

tion that the definate collar of the "cord marked" smaller pots was due to an internal influence. The rims of the "cord marked" sherds were generally finished smoothly, but there were minor variations. The principal exceptions were found at the Jones Site, near Monessen, Pa., where a few rims were evenly scalloped to a depth of ⅛ inch. The "cord marked" rims at the Finley Site, near Webster, Pa., although usually smooth, varied between a rounded, flat, or bevelled surface. The pottery of this general type was quite uniform in thickness, being ¼ inch on the average, and ranging between 3/16 and 5/16 inches. At the Fullerton Site in 1929, however, a number of cord sherds of ½ inch thickness were found, but the ranges noted this year are more typical for the class. Shell tempering was used in all cord pots, in fact in all the sherds recovered. Due to inequalities in baking the cord sherds presented a wide variety of color. Quite frequently one sherd showed gray black, gray, brown red, straw brown, and straw yellow. This occurred in all classes. Color, then, will hardly serve as a basis of classification for the pottery from this part of Pennsylvania, although the "cord marked" sherds showed a tendency to be darker than the chevron or plain types.

Occurring next in point of quantity are the chevron and parallel line designs which had been impressed on vessels whose sherds were found at the Sumie Site, near Mt. Pleasant, Pa. These constituted about 25 percent of the Sumie pottery. This type of impression has also been noted on the river sites. Of the sites investigated in the two years only two other encampments have yielded pottery of the type. The McGrew Farm, near Suterville, Westmoreland County, after a hasty examination showed about the same proportion as that found at the Sumie Farm, but further work there should prove profitable. Finally, the Steele Site, near Fayette City, gave up a few sherds of this workmanship, but they were almost negligible when the Steele pottery as a whole was considered. The Sumie pottery of this type, therefore, may be taken to illustrate, but it must be remembered that 75 percent of the sherds from this site were "cord marked."

The sherds impressed with the chevron and parallel lines indicated vessels of general Algonkian type, 10 to 15 inches in diameter, with a height in excess of width. The bases were gently rounded. In thickness there was no appreciable deviation from 3/16 inch. Rims were smooth in every case, with one of them being indented on the inside of the neck. Temper was of crushed shell and was fairly uniform. Irregular firing effected a motley of colors. Taken together, these are all good Algonkian pottery characteristics. The collars, however, departed distinctly from what is generally considered as Algonkian. Instead of little or no curvature to the sides of these pots, the neck has been squeezed

in below the rim to form a collar. This resulted in a definite belly-shaped vessel below. It will be recalled that some of the smaller "cord marked" pots were characterized by this same un-Algonkian form. Perhaps both of these exceptions indicate an alien influence. However, the pots of the chevron and parallel line theme were otherwise thoroughly Algonkian.

A very crude pottery made up 80 percent of the sherds from both the Stewart Farm, near Brownsville, and the Morgan Farm, near New Geneva. It was also found in lesser quantities on most of the other locations. In every case shell tempering had been used. In general form this pottery was much like the "cord marked" type, except that there was a moderate curve through the neck leaving a perceptible belly below. The curve continued up and out to give to the rim a diameter greater than that of the neck. This curve, however, was not as great as in the chevron type. Rims were plain except for a few sherds at the Stewart Site that bore single notched angular clefts to ¼ inch depth, and a few from the Morgan Site that had a round impressed notch at two opposite points on the rim. A ⅜ inch knob protruded beneath one of these depressions. (It is hoped that the Morgan Farm will be available for future excavation, for it promises to yield a pot type somewhat differentiated from those of the rest of the territory). But the greatest difference observed in the pottery of this type was in the workmanship. The shells being unevenly ground gave an unequal texture. Thicknesses too were not nearly as uniform as in the "cord marked" and chevron types. At the Stewart Site the average was ¼ inch with a range from 3/16 to ⅜ inch. So crude was the workmanship that this range of thickness was often exhibited in one sherd. The Morgan plain pottery was still thicker being ⅜ inch on the average and ranging from 5/16 to ½ inch. It is not surprising then to find that the baking too was most irregular.

One sherd from the Morgan Farm is of especial interest in that it exhibits peculiarities not previously noted. This specimen was quill marked 1 inch below the rim and parallel to it around the pot, which we recognize as an Algonkian trait, but descending from these were a series of diverging incised lines which seemed to form no systematic pattern. There was a sharp curve through the neck, almost through 90 degrees. The rim was undecorated except for a trough running around its entire course at a depth of 1/16 inch. The thickness was 3/32 to ⅛ inch through the body and, strangely enough, gained in thickness toward the rim where it was 5/16 inch. Shell tempering had been used and the baking was the best encountered anywhere.

This sherd is interesting from the fact that it alone, of all the sherds found, represents so much that is not Algonkian. The

incised lines, the extravagant curve through the neck, the troughed rim, and the uniform firing, all on one piece, are certainly not Algonkian. It has become a maxim that incised designs, from the territory of the east central states, are typical of the Iroquois; further, that where such treatment exists in the midst of a predominating Algonkian cultural arrangement one may strongly suspect Iroquois influence. However, even though incised, this sherd seems hardly to be a copy. There is no pattern that is suggestive of the Iroquois, or in fact is there any pattern at all except in the quill markings which are good Algonkian. The other exceptions to Algonkian form present a problem which summons up no readier answer than that they are exceptions. That this pot was made by an Algonkian goes without saying, and that the variations noted in the sherd are not indubitably Iroquoian is as much a truth. We may then reasonably allow for the natural variation that must even at times have come unprompted from the Algonkian.

OTHER CLAY OBJECTS

Both the bowl and stem of the pipe were frequently made from untempered clay although these objects worked in stone appear to have predominated. No stem and bowl was found in one piece but we are assured that such were used by the finding of a number of fragments with bowl and stem attached, and by the complete one found at Fuller's Hill in 1929. In fact, the more numerous red clay stems seem to have once been parts of whole pipe units. We also know that clay bowls were made as a unit to be attached to a separate stem, probably the bone variety of which a number have been found.

One pipe fragment at the Jones Site which included a part of the broken stem formed an obtuse angle between bowl and stem. The pipe with the attached stem which came from Fuller's Hill formed an obtuse angle in the same way. This is a characteristic of some Algonkian clay pipes by which they may be distinguished from those of the Iroquois.

Few of the clay bowls found in the two years of the survey have borne any decoration, tending rather to a crude workmanship. Utility seems to have been the primary consideration. One bowl from the Jones Site, however, was very neatly marked, being impressed with six parallel lines of evenly spaced vertical marks around the

bowl. But even this we can consider only as most elementary art.

The material used in all of the clay pipes and stems was untempered clay, and the baking process had given to them a uniform reddish brown color.

One pierced pottery discoidal that may have been used as a bead was found, but others from the region are known. This is only one type of many smaller clay objects that have been unearthed. Baked clay balls, 1 inch in diameter, appear to have been frequently used, probably in a game. Many pieces of rolled baked clay were found everywhere, but their use cannot be suggested.

SPECIFIC FINDS IN OTHER CLAY OBJECTS. 1930

FINLEY SITE

1. Red clay pipe stems; one fragment. No tempering. Round cross-section.
2. Roughly rolled and baked clay objects; many. No known use.

JONES SITE

1. Red clay pipe stems; three fragments. No tempering. Round cross-section.
2. Red clay pipe bowls; two fragments. No tempering. On one of them six parallel lines of vertical marks circled the bowl. This bowl was 1 inch high, ¾ inch in diameter, and had a ⅛ inch bore. It lay at an obtuse angle to the plane of the stem which was attached.
3. Baked clay balls; two fragments. Diameter approximately 1 inch. No temper.
4. Roughly rolled and baked clay objects; many.

STEELE SITE

1. Red clay pipe stems; one mouthpiece. No temper. Round cross-section.
2. Baked clay balls; three fragments. Diameter about 1 inch. No temper.
3. Roughly rolled and baked clay objects; many.

DEFFENBAUGH SITE

1. Pierced pottery discoidal; one. 1½ inches in diameter.
2. Roughly rolled and baked clay objects; many.

GILLESPIE SITE AND CRAWFORD SITE

1. Roughly rolled and baked clay objects; many.

BONE AND ANTLER WORK

A resume of Algonkian bone and antler work as derived from Skinner (which is in turn a recapitulation of his work and that of others—Indian Notes and Monographs, Heye Foundation, Vol. 2), shows in general that work of this type was far inferior in form and quantity to that of the Iroquois. In the central and western New York territory, which is close geographically to our Pennsylvania area, bone and antler work was more abundant, probably due to an environment that the eastern Algonkians did not enjoy. The Westmoreland-Fayette Indians lived in much the same tpye of wood and game country and have, as well, much to show in bone and antler implements. But as this work is nowhere of any particular quality, we will now be interested mainly in the distribution and quantity of the various forms.

Skinner has found that bone awls were fairly common throughout the Algonkian region, and that bone fish hooks, although scarce, were nevertheless apt to be found anywhere. Bone beads were almost absent in coastal New York and New Jersey, but in the region to the west they were more prevalent. Bone scrapers and reamers from the elk and deer metapodal were infrequently found everywhere in Algonkian territory; bone needles only occasionally. Antler cylinders for chipping flints were common, and turtle shell cups and rattles were fairly numerous. Conical arrow heads of antler tips, and others flat or triangular, were persistent throughout Algonkian territory, but were also characteristic of the Iroquois. The Algonkians had few barbed harpoons and when found they resembled the more abundant Iroquois types. Worked human bone was not an attribute of the Algonkians, whereas it was frequently used by the Iroquois. We shall see in how far the handiwork of the Westmoreland-Fayette Indians fits into this category.

The bone or antler artifact most frequently found during the survey was the bone bead, and it appears to have occurred even more frequently than among the Algonkians of central and western New York. Bone awls, as throughout Algonkian territory, were common, and there was a sporadic appearance of needle-like pins, turtle

shell cups, and conical and triangular arrow points. Antler tips, not worked into the usual cylinder, were apparently used for flint chippings. No fish hooks, barbed harpoons, rattles, or metapodal artifacts were found. It has been noted above that human artifacts were not made by Algonkians, and it was therefore somewhat disconcerting to find a parietal section of human skull in a refuse pit at the Jones Site near Monessen. It had been definitely fashioned and long used as a pendant (Fig. 10). To work with human bones is distinctly an Iroquois trait, and its presence in a territory of overwhelming Algonkian characteristics can logically point only to one conclusion. Probably the pendant was first in Iroquois hands and came to the Jones Site later through some chance contact. Perhaps it was made by an Algonkian, but the chances are remote. With that we must dismiss it.

Even aside from the parietal pendant under dispute we see that the work of the Westmoreland-Fayette Indians hardly agree with Skinner's findings. However, whether all of Skinner's implements were or were not found by the survey, or whether others were found also, is hardly of primary consequence as long as those that did occur bore the Algonkian stamp of inferior workmanship. This they did with such emphasis, even without the moral support they might have derived from the pottery, that the exceptions now must assume some importance in the final description of these Algonkians. That they are different from the eastern Algonkians is easily seen, and that they may differ considerably from all of the Algonkians described by Parker and Skinner must be borne in mind. But it must also be remembered that the work of a survey cannot honestly be more than an indication of a buried cultural arrangement. Intensive digging is necessary for an ultimate statement.

Returning then to our indications, with their limitations well in mind, we find that the Algonkians of Westmoreland and Fayette Counties were very partial to bone beads as a body or dress ornament (Fig. 11). These were usually made from the leg bone of the turkey, but at times were also fashioned from the fibula of the deer, from fish spines, from the humeri of small animals, or from the phalanges of the bear. The method with the latter

consisted in cutting away the posterior and piercing the anterior end. The simple cylindrical beads of turkey or deer bone were usually well smoothed at the ends, and not a few had acquired a high polish from handling. The manner in which at least some of the smaller beads were made from a long bone marked at the desired intervals and partially cut through. When each mark had been worked to this stage the bone was segmented and each bead finished individually. Although no bead stocks of the larger forms were discovered it is probable that they did exist and were, as well, the first step in the manufacture of the larger beads. The sizes of the cylindrical beads ranged from ¼ inch to ½ inch diameter.

Awls were usually made from animal long bone sections although scapulae of the deer and elk were used at times. In every case the points were neatly finished, but the same attention had not been placed on the butt ends, for seldom were they completed with any artistry. Utility seemed to be the only consideration. The one awl that was made from an antler was found with Burial No. 18 at the Finley Site. It was 6¾ inches long and ¾ inch wide at the butt end. The bone awls found ranged from 1 inch to 8 inches in length.

A few bone chisels or gouges made from the femur and humerus of the elk, as well as a number of fragments, were found during the survey and indicate a rather general use of this tool (Fig. 11). Several were also uncovered at the Fullerton Site in 1929. The finest specimen, occurring at the Steele Site, was 3½ inches long and 1½ inches wide.

No complete turtle shell cups were found (note the Fuller's Hill specimens, *Western Pennsylvania Historical Magazine,* Vol 13, No. 2 (April, 1930, Plate VIII) but enough fragments of worked and scratched turtle shell did occur to justifiably ascribe the use of these cups to the Indians of all of the sites. The shell was in all cases that of the common box turtle.

Used deer and elk antler spikes, probably the tool for flaking flints, were universal throughout the area. The measure of the Indian's esteem for this tool is noted in the interment of one of them with the adult male (Burial

No. 19) at the Finley Site. None of Skinner's antler cylinders for chipping flints were found.

Antler arrow points, hollowed in the center for the shaft, were not numerous but nevertheless did occur. One triangular arrow point made from an animal long bone was discovered at the Steele Site. But the flint point was the weapon in general use.

A number of needle-like pins were found, principally at the Jones Site. It is conceivable that they were used to hold a garment together. They were round in cross section, well finished throughout, and highly polished from use. Their lengths were from 1 inch to 2 inches.

The human skull pendant found at the Jones Site came from a refuse pit. It was 5 inches long and 3½ inches wide (Fig. 10). The natural suture lines formed part of the edge which was well rounded. The perforation, which was 1 inch long and ⅝ inch wide, was well formed and had been polished from use. There were scratches on both the inner and outer surfaces of the pendant, but more particularly on the concave surface.

Problematical pieces of worked and scratched bone were found in abundance on all of the sites and argue a great use in implements of this material by the former residents. Most of these were fragmentary but others were certainly finished for their use. Yet since no definite usage can be assigned, they must remain unclassified for the time being. One of these calls for particular attention and may indeed be a "turkey call", as has been suggested. It was a cut cylindrical bone 4 inches in length, finished at both ends, and came from the Steele Site. That it at least was frequently placed in the mouth is vouched for by the presence of teeth marks as on a pipe.

It is just such evidence that has made possible the designation of certain used bird bones as pipe stems. The best specimens, which came from the Finley and Jones Sites, were heavily chewed at one end and looked not unlike a modern briar stem that has been faithfully used for two or three years. The longest of these was 4 inches and would have fit nicely into a clay bowl of the type found. Bone stems, however, were not as numerous as the baked clay and stone varieties.

It seems then from the diversity of bone objects that occurred, excluding the skull pendant, that these Algonkians depended to a great extent on bone in the manipulation of their daily lives. These bone objects are not as varied nor as well made, nor are they as abundant as the Iroquois forms, yet they show a great development for a people who have been characterized principally by their achievements in stone. It is true that the stone work of these Algonkians excelled their work in bone, but the latter is by no means lost by the comparison.

SPECIFIC FINDS IN BONE AND ANTLER WORK. 1930

FINLEY SITE

1. Bird bone beads; nine ranging from ¼ to 1½ inches in length beside many fragments and ends of bead stocks.
2. Pendants; one made from the scapula of a small animal. 1½ inches long and 1 inch wide across the top.
3. Perforated bear phalanges used as beads; two.
4. Bone drills; two well finished at both ends had lengths of 4 and 4½ inches. One made from the scapula of a deer was 4⅝ inches long and ⅞ inches at the widest part.
5. Antler drills; one of 6¾ inches length and ¾ inch width at the butt end. Several fragments.
6. Bird bone pipe stems; one of 3 inches length.
7. Antler flint flakers; three.
8. Fragments of worked, polished, and scratched bone.

JONES SITE

1. Bird bone beads; two of 1¼ inch length, beside many fragments and ends of bead stocks.
2. Deer bone beads; one of 1¼ inch length, beside a number of fragments.
3. Perforated bear phalanges for beads; two.
4. Bone drills; five fragments.
5. Bone chisels; one fragment.
6. Bone pins; three with lengths from 1 to 1¾ inches.
7. Turtle shell cups; two fragments.
8. Bird bone pipe stems; two complete with lengths of 3¼ and 4⅝ inches. One fragmentary mouth piece of another.
9. Antler flint flakers; one of 5 inch length.
10. Human skull pendant; 5 inches in length and 3½ inches in width.
11. Fragments of worked, polished, and scratched bone.

STEELE SITE

1. Bird bone beads; seven ranging from ½ to 1¼ inches in length.
2. Drilled fish spine beads; three.
3. Perforated bear phalanges for beads; two.
4. Bone drills; three, two of which were 2¼ inches long. The other was 6 inches long.
5. Bone gouges; one of 3½ inch length and 1½ inch width, beside a fragment of another.
6. Bone arrows; one, 1⅝ inches long and ¾ inch wide.
7. Antler arrow point hollowed in the center; 1 inch long.
8. Antler flint flakers; two.
9. Bird bone pipe stems; two. The larger one was 3 inches long while the other was only 1½ inches long.
10. Turtle shell cups; many fragments.
11. Fragments of worked, polished, and scratched bone.

FRANCIS SITE

1. Bird bone beads; seven, ranging from ⅜ inch to 1¼ inches, besides many broken beads.
2. Fragments of worked, polished, and scratched bone.

GILLESPIE SITE

1. Bird bone beads; three, of ½ to ¾ inch length. A few fragments.
2. Bone drills; one, 2½ inches long.
3. Antler arrow point hollowed in the center; one, 1¼ inches long.

CRAWFORD SITE

1. Bird bone beads; only fragments.
2. Bird bone pipe stems; one fragment.

DEFFENBAUGH SITE

1. Bird bone beads; 40, lying in a double row around the waist of Burial No. 32.

FLINT AND STONE WORK

The flint and stone work found was in accord with that found in the usual Algonkian sites. Hammer stones pitted on both sides were abundant. None of these, however, had been fashioned for the purpose, but were merely utilized cobble stones. Several excellently made celts of diorite and a number of fragments attest the use of this implement. A keen edge, a high polish, and a surface as smooth as glass was common to each piece. No grooved axes were found but one came from near the Steele Site in 1929, and collections throughout the country contain many

specimens. A crude limestone axe with a chipped blade was found at the Steele Site. It would seem natural in the local absence of suitable materials that the rock at hand be used to make such necessary articles. And this is no doubt the reason that so many shale arrow heads were used at the Fullerton Farm and at Fuller's Hill.

Triangular flint arrow heads were rather more common than they should be on Algonkian soil, but they were larger than those usually found with the Iroquois. Shanked arrow heads were also found. Flint drills, 1½ inches long, sufficiently common to impute to them a general usage.

Only one stone pipe was uncovered, although several occurred at Fuller's Hill in 1929. The present specimen was found with the adult male (Burial No. 18) at the Finley Site, and had been carefully cut from a fine grained sandstone. Drawings had been roughly scratched on the two broad sides and one of them did not require much imagination to designate it as a standing man with feet apart. The stone pipes found at Fuller's Hill were made of slate, limestone, and diorite.

River stones that had apparently been used as rubbing implements were found only at the Deffenbaugh Site, but many were also found at Fuller's Hill and the Fullerton Farm. In all probability their main use was as a tanning accessory. They, together with flint arrow heads, celts, and grooved axes are the objects that most readily catch the eye of the amateur collector, and for this reason appear so seldom in our list. However, there is no real doubt that all of these stone and flint objects, and many more that were not found by the survey, were in frequent use.

Discoidals, usually cut from sandstone, were not an unusual find. As to their use little can be said other than that it has become customary to say that they were used in a game. The best specimens were smoothly finished, were from 2 to 3 inches in diameter, and in thickness were from ¼ to ½ inch. The present survey did not find any that had been marked, but one found at Fuller's Hill in 1929 bore eight converging scratched lines on one side.

A grooved rubbing implement was uncovered at the Finley Site and from its shape is judged to be an arrow shaft finisher. The groove was uniform along its entire course and was semi-circular in cross section. We have no reason to believe that the half of an arrow shaft cross section would not be similar.

The slate medallion found with the child's necklace on Burial No. 22 at the Francis Site was the only stone object of a decorative nature that was found. The necklace cord had been attached to it, not by the usual hole, but by notches cut near the top, and because of this the pendant resembled a shanked arrow head.

One other object worthy of note is the piece of worked coal found at the Finley Site. There is no clue to its identity other than the well worn edges which suggest the degree of attention due to an amulet. But if such it was, it certainly was not an intermediary between the Indians and a Spirit of Coal, for the use of coal was not known. One piece of cinder was found in a refuse pit at the Crawford Site but it undoubtedly reached that condition entirely by accident.

SPECIFIC FINDS IN FLINT AND STONE

FINLEY SITE

1. Hammer stones; two, made of sandstone and pitted on both sides.
2. Triangular flint arrow heads; two. The larger was 2 inches long and 1⅛ inch wide, while the other was ⅞ inch long and ½ inch wide.
3. Shanked flint arrow heads; one. 1¼ inches long and 1 inch wide.
4. Grooved rubbing implement; one. Made of sandstone and probably used to smoothen arrow shafts.
5. Pipes; one, found with Burial No. 18. Made from fine grained sandstone. Wedge shaped. Incised drawings on two sides, one of which is suggestive of a man with legs astride. 2 inches long; ⅞ inch wide at the top; 1⅛ inches broad at the top.
6. Discoidals; six. All made of sandstone and of about 2 inches in diameter.
7. Worked coal; one piece. 1¼ x ⅞ x 1⅛ inches.
8. Very few scattered flint chips.

JONES SITE

1. Triangular flint arrow heads; one. 1 inch long and ⅝ inch wide.
2. Shanked flint arrow heads; two. The larger was 1¾ inches long and ⅞ inch wide. The other was 1¼ inches long and had the same width.
3. Flint drills; one. The core was perceptibly tapered.
4. Celts; one complete and two fragmentary. The material was diorite. The complete celt was 3 inches long, 1¾ inches wide at the blade, and 1 inch wide at the pole.
5. Discoidals; one complete and a number of fragments. The whole one was 3 inches in diameter.
6. Very few scattered flint chips.

STEELE SITE

1. Triangular flint arrow heads; three. 1½ inches long and 1 inch wide; 1½ inches long and ¼ inch wide; ¾ inch long and ½ inch wide.
2. Shanked flint arrow heads; one. 1 inch long and ¾ inch wide.
3. Hammer stones, three. Pitted on both sides.
4. Flint drills; one. 1¼ inches long and ¼ inch wide.
5. Limestone axe; one. 5¼ inches long and 1½ inches wide at the blade. The blade had been chipped.
6. Discoidals; fragments.
7. Cupstones; one. The use of this object is not known. Many were found during the 1929 survey.
8. Steele's Hill produced more chipped flint than observed on any of the other 1930 sites.

FRANCIS SITE

1. Hammer stones, one.
2. Slate medallion; one. Not drilled but notched as a shanked arrow head. Discovered with the necklace on Burial No. 22. 2 inches long and 1⅛ inches wide.
3. Flint chips quite plentiful.
4. Discoidals; two.

CRAWFORD SITE

1. Hammer stones, twenty-five found on the surface.
2. Triangular flint arrow heads; seven. All about 1 inch long.
3. Flint drills; two. 1½ inches long.
4. Discoidals; six.

DEFFENBAUGH SITE

1. Hammer stones, eleven.
2. Shanked arrow heads, one fragment.
3. Celts; a number have been found by Mr. Deffenbaugh.

4. Rubbing stones; three. Perhaps used in tanning.

DEARTH SITE

1. Hammer stones; eighteen.
2. Shanked flint arrow heads; two.

SHELL WORK

We know that the Indians of Westmoreland and Fayette Counties subsisted on shell food to a great extent, yet they did comparatively little work with the cast off shell. But in this respect they are again Algonkian. Of ornaments made from the native mussel shell we find principally the small perforated disc of about ¼ inch diameter. From the uniformity of those found with burials at the Francis and Crawford Sites we may presume that they were cut from a long prepared cylinder which had been worked out of thick mussel shell. In this respect they suggest the method employed to make cylindrical bone beads. Each disc had been drilled separately, for the borings were uniformly uneven. By what means the discs were cut away from the original cylinder, is not known, but once severed each disc was rubbed on a flat surface until perfectly smooth. It was only after this process that the boring was made.

Shell pendants made from mussel shell were infrequently found, being superceded by those of bone and elk teeth. One was on the necklace with Burial No. 22 at the Francis Site and fragments were found elsewhere. Beads made of mussel shell were exceedingly scarce, although in 1929 at the Fullerton Farm a number were found.

The mussel shell was at times used as a spoon. The evidence in this case was an edge that had been rubbed smooth from use. It is strange that no more than these two were found, but the explanation perhaps is that most of them when broken were ground up to be used for the temper in pottery.

A number of shell objects were found to which no use could be assigned. Three of these were whole mussel shells whose edges had been serrated, giving them the resemblance of a saw edge.

It was, however, in what we may call imported shells that these people are distinguished. A number of burials were uncovered in which many marginella apicina shell beads were found. The habitat of this shell is the Gulf of Mexico. The Fullerton Farm also yielded many beads of this type, Burial No. 13 alone having 84. (The apicina was mistakenly called the cowry in the 1929 report. Since the publication of the first report it has also been ascertained that a shell pendant found at the Fullerton Farm was made from a shell which is restricted to Mobile Bay—Cyrena carolinensis.)

One more Gulf of Mexico genus is represented by the pendant that graced the end of the necklace on Burial No. 29 at the Crawford Site. Whether it is Fasciolaria or Busycon we do not know, but in either event we do know that it is a form restricted to the Gulf of Mexico or the east coast of Florida.

It has been stated that these southern shells distinguished the Indians of this region, but it is not for any skill involved. Only a very simple drilling or rubbing was necessary to change these shells into beads, and it is even doubtful if our Indians did this. But the significance and importance of their having had these shells in the numbers that they did, is that an extensive trade relationship with the south is certainly implied.

SPECIFIC FINDS IN SHELL WORK

JONES SITE

1. Shell pendant; fragment.
2. Shell disc; one. Not perforated. 1⅛ inches in diameter.
3. Perforated mussel shell; one. The perforation was roughly done. No use can be designated for this object.
4. Shell spoons; two. Merely used mussel shells.

FRANCIS SITE

1. Shell pendant; one. Found with the necklace on Burial No. 22. ¾ inch long and ½ inch wide.
2. Shell discs, 33. Also found with Burial No. 22. Probably used as hair beads. They were in the form of cylindrical sections of about 1/16 inch thickness and of a diameter of ¼ inch. The thickness was not constant, but the diameters were uniform, indicating that they were cut from an original large shell cylinder.

STEELE SITE

1. Apicina beads (The apicina is a specie from the Gulf Coast of Florida); three. One of them was with Burial No. 25. The heads had been rubbed off to allow for stringing.
2. Shell pendants; two fragments. One of them was with Burial No. 25. The other which was more complete was from a refuse pit and was ⅝ inch wide and probably ¾ inch long when complete.

CRAWFORD SITE

1. Shell necklace; consisting of 455 shell discs, 4 apicina beads, and one drilled shell of the genus Fasciolaria (or perhaps Busycon). The latter is in either case a native of the Gulf of Mexico or the east coast of Florida. This necklace has been described with Burial No. 29.
2. Apicina beads; 24 with Burial No. 30; two found in refuse pits.
3. Shell beads, one fragment. Made from a mussel shell. Originally shaped as a hollow cylinder, 1½ inches long. Subsequently it broke longitudinally. The half that was found had been partially perforated at one end to make a bead of another fashion.
4. Shell spoons; one. Made from a mussel shell. Rubbed smooth from use.
5. Mussel shells with serrated edge; three. No known use.

FOOD

Animal bones, derived mainly from refuse pits, indicate that much of the Indian diet consisted of flesh. The following animals have been identified, although some of them, and in particular the skunk, may have been used only for their skins: black bear, Virginia deer, elk, beaver, raccoon, opossum, rabbit, woodchuck, gray squirrel, red squirrel, skunk, wolf, fox, mink, muskrat, porcupine. Of birds, the wild turkey was prominent, although there were many smaller birds. Fish, mussels, and turtle appear also to have been important variants of the Indian diet.

The evidence of the indulgence of these people in plant food is not so well preserved, but we cannot doubt that it too was of great importance. Carbonized remains of the following have been discovered: corn kernels and cobs, squash seeds, beans, wild cherry seeds, wild plum seeds, hickory shells. (Fig. 12). The corn, beans, and squash were cultivated and it is probable that the pumpkin

was also. The list could safely be extended with the addition of other wild fruits and nuts, and edible roots.

CONCLUSION

As a result of a study of this and related data we are justified in drawing a few pictures of the life of our antecedents in Westmoreland and Fayette Counties.

Their villages were on the river banks and on the nearby hillsides. When they were on the higher ground they appear to have preferred the southern exposure although many camps were on the very hill tops. Earthworks were built around at least two of these, the Francis and Gillespie Sites; and the latter may indeed be the fortified village cited in a number of early colonial records. But whether it is or not, it is nevertheless in a most strategic position. Brownsville and the Monongahela River lie far below, and from this valley access to the village would have been most labored. The vulnerable point in this fortress was to the south, but even here an entry would have been more than a modest undertaking against a body of defenders, for the earthworks seem to have been most substantial on that side. Vision, too, from this site was as good as that encountered anywhere. Even with the hills wooded as they certainly were, a good bird's eye view would have been afforded on all sides. And as far as movements on the river are concerned, nothing could have escaped a close observer. The Monongahela bends sharply at the bottom of the hill and as a result a view to the north and west is possible. All camps were not as ideally situated, but most of them indicated considerable forethought as to defense, vision, and water supply.

In their daily life these Indians hunted and fished with a certain proficiency that cannot be doubted, for even the fleet elk was not a stranger to their table. Flint arrow heads were probably the most effective but antler and bone arrow heads were also used, perhaps for birds. Fields of corn, squash, and beans claimed some attention, and the forests supplied fruits and nuts.

Axes, celts, hammer stones, and other stone implements did heavy duty, but shared the total of work with tools made of bone. Decorative objects and others for

manual use were fashioned from discarded bones and shells, and the objects in bone were not an inconsequential part of the cultural pattern, as this report has endeavored to make clear.

Aside from bone and shell, decorative pieces were made from hammered copper (Fuller's Hill - 1929), pottery, fish spines, and animal teeth. Of the latter, teeth of the elk, bear, fox, and wolf, were drilled at the roots and thereafter used as beads. In the drilling of these it is not unlikely that a very fine flint drill was used, and it is probable that the shell beads were treated in the same way. Shells of a southern origin were used as beads, pendants, bracelets, and hair ornaments, and by their very presence in this northern country connote a distant trade relationship. The evidence of the copper is not necessarily as far reaching, but it nevertheless indicates a trade current in another direction.

Pots and jars were made from clay mixed with a finely ground mussel shell, and from their varied sizes we may suppose that they were used for all purposes from cooking to storing food. At times a potter experimented with a new design, but usually he held to the traditional cord marked impression. The baking was done on an open fire which was not conducive to a final textural uniformity.

The shell of the box turtle was used as a cup and with it the Indian probably dipped his ration from the pot on the fire. Mussel shells used as spoons may have been used to convey food from these cups. No such objects in wood were found but it is entirely probable that they were used. The only material suggestion of the use of wood is in the small mass of it that lay under the pelvis of Burial No. 26 at the Gillespie Site, but no form could be reconstructed.

That these Indians indulged in a primitive form of realistic art is shown by the three pictographs, or rock carvings, that are known in the region. There is a possibility that these crude scratchings also had an esoteric meaning, but as they have not been studied, little can be said regarding them other than that there is a definite similarity between the one at the Francis Site and that near the Sugar Grove Church, Greene County. The other

is at the Monongahela River level near New Geneva.

Whn the Indian died he was usually placed in a flexed position in a grave on the periphery of the village, although four children were found buried under the floor of a hut depression in the middle of the Fullerton Site (see 1929 report). One of these was buried at length and is the only one that was not at least partially flexed. Burial objects appear to have been rather more common than among other Algonkians reported. No less than twenty-two of the thirty-four burials of the two seasons have yielded artifacts which were usually at the head, face, neck, or hips. Eight of the thirty-four burials had been burned to some degree while in the grave pit, but this can only be construed as a ceremonial rite, because with some of the burials, objects of certain regard to the individual during life, and possibly after death, were placed with the body. In fact the other burials seem to have been subjected to the same ceremony, but less intensively, for over most of them was found the same concentrated ash and charcoal that covered those actually burned. As a final sign of regard ten of the total were covered with sandstone slabs.

That these Algonkians had been in the country for many years, and that they were not as migratory as we have been led to believe, is attested by the depth of deposit in most of the camps. Even outside of the refuse pits we find a heavy debris that was added little by little, and all of the floors of their depressed huts (Fullerton 1929) had been substantially built up by shells, bones, and other waste, since the original excavations. However, a date cannot now be ascribed. We can only be assured that these Indians were pre-colonial.

NOTES ON THE RIVER SITES

It is not a mere coincidence that the pre-historic river sites of Westmoreland and Fayette Counties have all been covered with mills or coke plants. The broad stretches of the river bottoms were the natural places for both the Indian encampments and the later industrial sites, and for that reason there are no Indian camps available for investigation on the river in these two counties. How-

ever, due to Mr. George Fisher's timely interest in the matter, the writer has been able to reconstruct much concerning these vanished bits of evidence. He has also questioned Mr. Fisher on similar sites that remain in Washington and Allegheny Counties, but which the expedition for reasons of jurisdiction was not able to investigate. As part of the necessary Indian research in the country to the west and north-west of Westmoreland and Fayette Counties, the existing river sites should be systematically searched before they too fall prey to encroaching industries on the Monongahela River. The writer did witness the uncovering of one river burial at Dunlevy in Washington County on the Monongahela River, and at the same time got a fairly good idea of a typical river village, as Mr. Fisher designated the Dunlevy Site. As an aid in the reconstruction of the picture as given by Mr. Fisher, the reader may find it useful to consult the prepared table (Table III).

The river sites were long and narrow in a roughly oval manner in contrast to the circular hill top and sloping knoll sites. This was undoubtedly so in order to take advantage of the greatest amount of river frontage. The camps, which are not at all uniform in size, all border the river banks, and some have even been eaten into by the meandering of the rivers. The Elrama village was discovered because the undercutting river caused a drop in the bank leaving some bones exposed.

Aside from the external form of the river sites there is also common to them a great quantity of mussel shells. These people subsisted on hunting, fishing, and some agriculture, as did the hill-top people, but their diet consisted more of the mussel than did that of the latter. This would be entirely natural from their geographic position. However, what is really surprising is the uniformity of the burials. All of those exposed by Mr. Fisher, including the one that the writer saw at Dunlevy, were covered by large stone slabs, were flexed, and were usually without artifacts. The slabs were carefully rounded at the corners, the average length being perhaps five feet and the width three feet. The group burial at Elrama consisting of thirty-three skeletons had been thus marked only at the east end, yet it was a definite mark. There was no

apparent order to this group, all of the bodies having been placed in one hole.

None of the higher sites investigated by the survey presented any such uniformities, although Mr. Fisher reports that at the Jonestown Site near Bentleyville, Washington County, which is on high ground, he uncovered sixteen burials of which fifteen were covered by large slabs which were usually worked at the edges. This burial feature has been noted by the survey at Fuller's Hill and at the Fullerton Farm but not in such great proportions, and while it has also been observed at the Francis, Finley, Crawford, and Deffenbaugh Sites, it has not yet become a generality on any of them. Neither are the slabs as well fashioned nor as large.

A characteristic of the river sites which is also shared in general by the hill-top locations is the placing of graves outside the central area of habitation. This seems to have been a universal characteristic of the river Indians, not one grave within these limits having been found. This trait was not quite so strong with those living on higher ground, yet even there it was sufficiently common to be designated as a trait.

Only two of the river villages have contributed burial artifacts, these being Bunola and Courtney on the Monongahela River, but even here they appear only sporadically. With the great number of burials exposed, one hundred and sixty-two to be exact, and considering also the great geographic range of the sites involved, we may quite safely assume a distinctive difference in the inhabitants of the low and high locations. It is essential to recognize in the hill top people some reason for burial objects being as common as they are.

However, it is not the intention of this paper to differentiate the two peoples, if indeed they be other than one, by these criteria. Many anthropological loop holes can be introduced to show the weakness of any such a priori decisions. One could speculate at great length on arguments for either view, but finally it would be conceded that more work must be done. The necessary material is not yet at hand. That there are a number of striking differences is apparent, but they must be re-inforced.

Merely as an added note to leave the question a bit

more in the air, we may look at the pottery forms evident on the river. The sherds indicate pots with much the same form and decoration as those found on most of the elevated sites—that is, they range from eight to twenty inches in diameter and are generally cord marked. There is little or no neck and the rims are quite plain. Shell tempering is universal. However, on four of the thirteen river sites considered the pottery departs from this pattern.

At Allenport fully eighty percent of the sherds are striped with a generous portion of the remainder being plain. It is probable that many of the plain sherds were the bases of striped pots, for embellishment would hardly have extended to the less important bottoms. The striping was done by impressing and not by incising, and was held usually to a horizontal or vertical course. Some chevron motifs were noticed. The rims were smoothly finished and the color of the pots as a whole was lighter, tending toward yellows and reds rather than the darker hues so evident in the cord marked pottery. Perhaps not more than five percent of the sherds were cord marked.

At Dunlevy on the Monongahela River, and at the Shields and Weaver Sites on the Youghiogeny River, striped pottery appeared to the extent of ten percent in much the same form as that found at Allenport. Cord marked pottery predominated, but it is nevertheless significant that striped pottery did occur. It is also of interest that on the remaining nine river sites, which otherwise bore a strong suggestion of similarity, there was not a sherd of the striped variety. The enigma only increases when we know that a small proportion of the hill top sites also are characterised by striped sherds. The particular problem is not whether or not the sherds indicate two opposing cultures, for they do not. They together with all available data place their manufacturers as Algonkians above reproach, as were the inhabitants of all other sites investigated in the area, but the particular problem indicated is whether the various individualities can be the means of isolating tribes within the group. Such a solution would be the natural end of any investigation such as ours. It remains to be seen whether the consummation

of this want can be effected through a closer study of the differences involved.

TABLE III

CONDENSED DATA CONCERNING THE RIVER SITES.

Sites	County	River	Burials	Stone Burials	Burial Artifacts	Pottery
Allenport	Washington	Monongahela	3	3	0	80% striped
Dunlevy	Washington	Monongahela	8	8	0	10% striped
Courtney, below Monongahela City	Washington	Monongahela	20	20	Present	Cord
Elrama, below Monongahela City	Washington	Monongahela	33	Stones over group burial.	0	Cord
McKane, in Charleroi	Washington	Monongahela	2	2	0	Cord
Riverview	Washington	Monongahela	8	8	0	Cord
Bunola	Allegheny	Monongahela	81	81	Present	Cord
South Elrama	Allegheny	Monongahela	8	8	0	Cord
McMahon, below Monnessen	Westmoreland	Monongahela	4	4	0	Cord
Gibsonton	Westmoreland	Monongahela	5	5	0	Cord
Fayette City	Fayette	Monongahela	3	3	0	Cord

MR. FISHER'S SUPPLEMENT TO MR. ENGBERG'S REPORT FOR SUMMER OF 1930

FRANK MORGAN SITE, Fayette County, Pennsylvania. This site is almost due south of Uniontown and about six miles out of Smithfield. It covers about five acres and has surface shell with shell tempered pottery, of a different type from other sites in this district. The usual types of pottery are basket corded or smooth, but here we find incised sherds similar to those found on the Susquehanna River. They are delicate and slightly angle from the top about seemingly half way down side or about two to three inches. They are basket corded and smooth as well as wide striped, in many ways they are similar to sherds found at Allenport, Washington County (now lost). There is a very wide division of types of vessels. Some are curved almost three-fourths of the way down the sides, forming a very fine finger hold upon the top, others are smooth and straight to top. The thickness varies also, but seemingly not with size of vessel as some small ones are thick while other larger ones are thin. But one thing seems to prevail on this site. All the pottery is well made and burned, no soft muddy pieces were found. Sherds were discovered in all ash and

refuse pits. They were in no particular order and scattered thru the pit from top to bottom. Several refuse or ash pits were opened on this site but no skeletons were found.

NO. 1 PIT

One pit opened on the southeast side of site. It measured five feet in all directions and was twenty-four inches deep. This pit had unusual black soft fine dirt from top to bottom and contained shell tempered pot sherds, animal bone, scraps of fish bones and scales. The sides of the pit seemed to have been smoothed before anything was put into it, as the place was very dry and the dirt came out easily and left the sides and bottom smooth. Nn other pit of this particular kind has ever been recorded in this district. The bottom was even, rounding like a basin and deep on one side. Small shells were plentiful.

NO. 2 PIT

Pit No. 2 was found about one hundred feet east from No. 1 and was of an entirely different type. It was dug almost square at the bottom which was covered with a layer of heavy ash and charcoal. No animal refuse or pottery was found below the first ten inches. There were eight inches of white ash at the bottom and no sign of any other kind of material. Above eight inches almost every kind of general camp refuse was found. The pottery was all basket cord, no incised pottery was found. On the west side was a number of snail shells in one place.

NO. 3 PIT

Twenty-two feet southwest from Number 2 was another pit, (5x5x24), almost round and of basin shape. It was similar to Number 1, with the exception that from the eighteen inch level there was an offset or ledge, sixteen inches in from the edge; from this point there was six inches of pure ash. From the top to the offset there were many kinds of bones. No shells were discovered in the pit. Several hammer stones were scatterd thru the debris. No beads or other artifacts have been found in these pits. The sherds found are of different types, all shell tempered, basket and etched.

NO. 4 PIT

The pit was found on the west side of the site. It measured five feet by five feet and was twenty inches deep and of basin shape. This pit, like the others, contained general refuse. A few pot sherds were found in one end. One fragment appeared to be a whole vessel but, after several hours work it was found to be fragments of several different vessels. The shell in this pit seemed to be burned more than usual, as they were soft and flaky. A few snail shells were scattered thruout this pit. Broken stones

were also found, but they did not seem to have any significance as they were rough and odd shaped.

NO. 5 PIT

On the northwest side of the site seventy-five feet from the edge Pit No. 5 was found. This pit was in a protected place; ash and charcoal were very profuse. Size seven by nine below plough level. The ash was six and eight inches deep. The size of the hole was sixteen inches across the top and twenty-eight inches deep. It was full of ash and charcoal and toward the top a few shell and bone scraps were found. All objects were burned. This site, probably, will yield some very interesting data if more time is spent upon it. The northwest side as well as the south side was hardly touched. In a few places there seemed to be considerable pottery. These were investigated. One of the interesting features of this site was a spring almost directly on the western side of the site. Sites in this region have their water supply several hundred feet away. It will be of interest later to compare this site and a similar one in Washington County, and another at Shields in Allegheny County. All three of these sites have their water supply very near or in the village proper.

The Indian sites in Westmoreland and Fayette counties located, and not worked, are as follows: Turkeytown, Brownsville Reservoir, Alicia, New Geneva, Hackney, Stewart No. 2, Hogsett, Dearth, Point Marion, Old Hill Farm, Owens, Dickerson Run and Sutton. Eighteen of these sites have been located but not excavated. Most of these sites are in Fayette County between Uniontown and Brownsvill, and up the river to Point Marion. There were other sites heard of but time did not allow us to investigate. The (Alicia) site above Brownsville and along the river has been destroyed, as the town of Alicia is built on the site together with several hundred coke ovens. Other sites surveyed and worked this season are Pittsburgh Coal at Brownsville, Crawford and Stewart near Brownsville, Deffenbaugh near Smithfield and Tomer near Webster. Mr. Engberg will undoubtedly report these with the exception of Tomer, a detailed report of which follows.

TYPES OF SITES AND THEIR LOCATION

TURKEYTOWN is about two miles east of West Newton on a ridge running toward Greensburg on Mt. Pleasant road. Shell and the usual basket corded and shell tempered potterly, is found. This site at present is in sod but it will be a fine place to work later.

BROWNSVILLE RESERVOIR is on saddle southeast and near the reservoir above Alicia mine. This site can not be seen

from the river to which it is very close. Where the reservoir now stands a lookout could have been posted to see for miles both ways along the river as well as back country. This site should be explored as soon as possible as it may soon be broken up and sold for homes. If this is done all data will be lost. Mr. Wm. Lynn of South Brownsville has several interesting pieces of worked bone from this site. Several test holes were dug over a section of the northwest side and down about twenty inches. Shell was plentiful together with coarse charcoal. A few pot sherds were found in the shell; all were shell tempered with basket corded decoration. This shell site is well worth investigating.

NEW GENEVA. On the old road just outside of the town on the top of the hill a site is on both sides of the road, the best part of which seems to be on the upper side. Shell is found in spots, (pottery is scarce), shell tempered and basket corded. This site should be investigated as it overlooks the river where picture rocks are found.

HACKNEY. The John Hackney site is the first one that should be investigated. It sits back from the river about three quarters of a mile and is situated on a very fine ridge, running away from the river. On the east side it covers about fifteen acres and is indicated by shell and pottery. The pottery on this site resembles the Frank Morgan site father south, as similar markings have been found on the pottery.

STEWART NO. 2. This is on the old Stewart Farm south of Brownsville about two miles and near the Charlestown School House district and in front of the old brick house. It is a small site with shell and pottery. It is a separate site from the Stewart main one, lying about one-fourth of a mile to the southwest. Would not advise spending any time on this at present.

HOGSETT. Wm. Hogsett's Farm is about four miles southwest of Brownsville, near the West Penn Power Lines. I would not advise excavating this site at present. A beautiful pipe belonging to Mr. James Barber is said to have been found on this site. It is on the top of a rather high hill which cannot be seen from the river. It once covered about seven acres. Shell tempered pottery, basket corded and of a light color, lighter than on most sites, is found here. This site runs northeast and southwest.

DEARTH. The Walter Dearth Farm is about three and one-half miles southwest of Brownsville. It covers about five acres and runs east and west. It is well back from the river about one and one-half miles. Shell is plentiful, also pottery, the same as on all other sites in the region. The pottery is shell tempered, basket corded, and of the usual color. No work was done on this site but it is a good place to look into next spring when work begins. Some fine artifacts have been found here by the Dearth Family and are now in their possession.

POINT MARION is a small shell site about one mile north of Point Marion proper, on the first bench from the river bottom. Pottery is but scarce here as well as bone work. The site covers about one and one-half acres.

COAL SPRINGS is a fine shell camp site about three miles east of Uniontown. It is situated on the east side of where highway crosses the Baltimore & Ohio Railroad. It covers about six to eight acres, and light colored pottery as well as the usual kind is found on this site. There is more pottery than shell on this site and there also seems to be no vacant place in the center like the general run of sites in this district. It is almost round in shape.

BEASON is about one mile south from Coal Springs on the second bench running east. Shell and pottery indications are similar to the Coal Springs site. It covers about the same amount of ground.

THE STRICKLER site is near the Youghiogheny River, north of Connellsville and back of the second range of hills. One can see the river from this site, which should be worked this coming summer along with the Hackney or Dearth sites. It covers about six acres and runs north and south.

THE OWENS site is about two miles southwest of Scottdale, upon a high point. There is some shell and considerable pottery on the southwest side. This can be called a site but it does not seem to have been occupied very long, as both shell and pottery are scattered over about six acres. I would not advise work on this site for the present.

MENNONITE CEMETERY site is in saddle of hills about five hundred feet northeast of the cemetery at the left of the road from Scottdale. It covers about five acres. I would not advise work here as shell and pottery are only in small spots and fairly well scattered.

THE SUTTON site is about three miles southwest of Scottdale and lies facing the southeast. It is an excellent site, covering about eight to ten acres. Shell is plentiful as well as pottery. At this writing, heavy grass is on the site, but shell and pottery were found abundantly. I would advise spending several days on this site in the next few years.

DICKERSON RUN once was an excellent site, as several bodies have been taken from here, but no data was obtained about them, as the Pittsburgh and Lake Erie Railroad dug them up with a steam shovel. This site is now lost, as the Pittsburgh and Lake Erie Railroad yards and round house are built here.

At this writing, heavy grass is on the site, but shell and pottery

OLD HILL FARM site is about midway between Vanderbilt and Connellsville on top of a hill where two fine views of the

Youghiogheny can be seen. This is a fine site and should be investigated in the near future. Shell and pottery is plentiful on this site which shows occupancy for a great many years. All pottery found is the same texture and temper as almost all other sites in this district.

Several other sites have been learned about but could not be investigated as time was too short. At another place above the river several bodies have been located and partly uncovered. This work was done by a party who did not do the work properly.

OLD TOMER FARM is one-half mile north of Webster, Westmoreland County, on the first bench above the river facing the west. This is a site bare of all vegetation caused by the fumes from the zinc works at Donora. As there is no grass to retard the water from the hill, several bodies were washed out and found by a Mr. Percy Graham. He had not uncovered these bodies, but they were found by him. Some were almost entirely washed away while others were only party uncovered. I located twelve burials and only took measurements of two good ones. The other ten had been partly washed away. Bones were scattered from the site to the river, a distance of about one-fourth mile. This site is unusual, as the pottery seems to have a grit temper and shell is extremely scarce. There seems to be an equal amount of basket cord and smooth surface pottery which is burned very hard. The burials were not in a uniform position in direction as some heads seemed to be to the south facing the northwest. Charcoal and shell were scattered all thru these pits as far as could be seen. The ones that were opened and measured contained considerable. All burials measured had had a fire built upon them, as some of the bones were seemingly calcined, but the fire did not seem to have been as high upon the body as others found in this district. Instead of being around the head, it was on the lower part of the body; some of the pelvic bones were quite dark on the edges. Other evidence was heavy ash and coarse charcoal. There also seems to be a peculiar condition here in regards to the position of the burials. I found where two burials had been placed one over the other with about six to ten inches of earth between each burial. The first or lower was about twenty-two to twenty-eight inches deep. These have been washed out and not much data could be obtained, but there is, however, one burial I did not have time to investigate. It is under a skeleton I had taken out and measured. All burials were flexed, as nearly as could be determined, as some knee bones were about all that was left of some of them. No artifacts were found with any of these bodies. Owing to the limited amount of time and the lateness of the season, no investigations outside of the washes could be made, but, no doubt, some very valuable data can be taken from this site when several weeks can be spent there. The site covers about

ten to twelve acres and has the appearance of having been occupied a long time.

In conclusion I might say that this season's work has been very successful. Several fine sites have been located extremely far south in Fayette County that should be worked. Also some very good sites have been located along the Monongahela River. Dr. Enberg will probably give you a report on the sites that should be worked as far as he has been able to see, but since he left, some extra fine sites have been located, as there are several small collections that we have seen during our investigations, and I would recommend that enough money be set aside to purchase them before it is too late and the specimens are lost to us.

I offer another suggestion, that a committee of at least five of our executive committee, headed by our most Honorable Judge Reppert, be asked to go to all the sites that are to be worked and make arrangements with the owners of the land to not allow any person or persons to do work on their property unless they have the proper credentials to do so. This will save considerable time and all land owners will know who it is that is on their land and where the fast disappearing artifacts are going.

Editor's Note—Credit is due to Mr. J. W. Miles of Irwin, Pa., for arrangement of the illustrations.

Captain Samuel A. Craig's Memoirs of Civil War and Reconstruction

PART IV.

Experiences and Duties as Captain V. R. C. U. S. A.

My commission as Captain V. R. C. is dated August 1st, 1863, signed by the President, Abraham Lincoln, and by E. M. Stanton, Secretary of War. We were at first called Invalid Corps, later Veteran Reserve Corps, U. S. A. It was composed of officers and privates, disabled for service in the front, by wounds or other disability. I was sent home to await orders and was soon ordered to report for duty to Louisville, Kentucky, where I was assigned to command of a company No. 20, then to No. 102, 1st Battalion I. C.; then on October 15th, 1863, I was ordered to Indianapolis and assigned to the command of Co. A, 17th Regiment, Veteran Reserve Corps. Our duty was to command the company, in camp at Camp Morton, Confederate prisoner camp, and furnish details of guards over the prisoners, and act in turn as Officer of the Guard, over that camp. It was one of several very large prisons in the North, one at Elmira, New York, where Capt. Thompson was on duty and one at Camp Douglas, Chicago. Ours was constructed as barracks or large sheds, about 100 feet by 20, with two-story bunks on each side and a passage way through the center, in which at intervals were large six plate horizontal stoves for the burning of wood as fuel. We also furnished details about the wood and other duties. A high fence of boards and heavy posts surrounded the camp, on the outside of which about 2 and one-half feet from the top, was a walk or platform, so that the guards could walk on it,—head, arms, and shoulders extending above the fence, giving them a good view of all prisoners and their movements inside, and could see that none escaped. Here provisions were furnished to the prisoners, or a blanket when needed. The wood furnished was large, probably about cordwood size. A rather small stream of water flowed through, but wells were used largely. In the winter of 63-64, it was extremely cold, and then, as Officer

of the Guard, I saw the prisoners on my rounds, sometimes hugging up close around or lying very close beside the stoves and when wood enough was wanting, they seemed at times very cold. The Officer of the Guard had, of course, supervision over them while on duty. The care of a company of about 100 men, and other duties kept me pretty busy, but I managed while at this camp to attend (in citizen dress) the North Western University, a college about five squares distant and there recite in German and Chemistry. And I would attend church and Sunday school and occasionally the Wednesday night prayer service. One attempt to tunnel out was made, by starting at a hidden point under barracks and concealment of the digging, but it was discovered and thwarted. Heard the prisoners sing quite well at times and saw them trying to pass the time at cards, making little things with penknives, etc.

February 11th, 1864. I was only a few months in Camp Morton duty, when our Colonel, A. J. Warner (Gen. Warner of Marietta, Ohio), Commander of the Post, ordered me to take command of the Soldier's Home, down in the city. This was a large building, all in one large dining room (with large kitchen) on one of the side streets and had a few barracks for an office for the Clerk and Commander, and apartments for guards, cooks and helpers. During these days, regiments of soldiers having re-enlisted for the war were given transportation home on furlough; very many were Indian soldiers and soldiers from all states, westward and northward, passed through Indianapolis en-route, and were here fed a meal as they passed; so that we kept a big free government hotel; some of my mess mate officers, poking fun at me, called it "Craig's Hotel de cheap and nasty". Very many soldiers were constantly passing through, back and forth *from* the army and from the states *to* it, besides recruits. We fed them government rations at long tables, furnished with knives, forks, spoons and tin plates, supplying bread, butter and fresh meats, in addition to army rations. I boarded at a hotel up in the city, or at a very good officer's mess or boarding house. All went smoothly under my superintendence except two troubles. One was in its origin unknown to me. I knew my men were not held in highest esteem by the soldiers of the front—they didn't understand the

corps was in the main really composed of wounded and disabled soldiers (perhaps some few feather-bed men from the front or hospitals, whom reports said were shirking, and were seeking easy berths, had got in this corps). At all events, rumors and disparaging remarks were sometimes heard; probably in some way foolishly bad blood had been stirred and suddenly one day a regiment had stacked their guns in the street in front and were at dinner; when out they came swearing, running for their muskets and a serious fight or riot seemed imminent. I rushed out among them, tried to quiet the row, when they seemed about to use their guns, so savage were they and so numerous, a regiment armed against a company or much less, for I had not called out even what I had; but just then, Colonel Warner, a tall, sharp-eyed, pocked-marked faced man, flourishing his crutch and cane, hobbled upon a box and forcibly and in vigorous and impressive manner, harangued the excited crowd, as to the disgrace they would bring upon their state and themselves, and so foolishly; asked any one of them who really had a grievance against the men who were feeding them free, to come up on the box and tell his complaint, or go quietly about their business. His manner and evidently crippled condition did the business and there was no response and all quieted down in peace, with the regiment again stacking their arms. The other trouble I got into was more serious, personally. I found, after a while on this peculiar duty for a United States soldier, that Gov. Morton and his State Quarter Master General Stone, were practically running this Hotel. I told my friend and Colonel that when the requisitions for the very large amount of supplies required for this Hotel (Soldiers' Home) came to me for my signature and affidavit to the truth and correctness thereof, I couldn't make the oath, nor sign what they wanted me to sign; that I had never received the amounts, quality or anything even approaching them; that General Stone wasn't a U. S. soldier and couldn't draw rations from the Post Quarter Master and wanted me to do it in my name; and that he would then dispose of flour, pork, etc., in exchange for butter, fresh beef, bread, knives and forks, etc. I didn't have the run of the exchanges and didn't oversee, or see into the inside of the transaction; General Stone had sent for me,

handed me the requisitions already made out for me to sign and swear to, and had explained that if knives were needed and butter, etc., it was all one to "Uncle Sam", if he took flour, pork that I would draw, if I signed, and nobody, "Uncle Sam" would be the loser. [Sic] · Well, General Warner saw through it and approved my conscientious stand. I told him the consequences; that Gov. Morton or Senator Morton could easily have some one else take the position in my place, which he did, and I was soon relieved. Of course I knew, in addition to the good done in this soldiers' home, it helped Gov. Morton's political aspirations. Then soon after, I was appointed by Post Commander Col. Warner, Provost Marshall of the District of Indianapolis. This was a very different and difficult variety of duties. I had superintendence of the guards we needed in policing and in keeping the many soldiers always in the city; arrests of the disorderly. I kept a number of our V. R. C. soldiers as a detective force, for use in ferreting out and arresting bounty jumpers; many of them came from other states and cities and from this state, and having enlisted and received bounties, or having been substitutes for bounty, made a practice of deserting and then going to other cities and playing the same game there. We arrested and imprisoned many, searched them in our prison or guard house, found large sums of money often concealed in their clothes, which we took and accounted for to the Government at Washington. These amounts would run from a few hundred to as high as $1500, sometimes found upon one man! My men would take them before the Post Commander, Col. Warner, who, by cross questions into their account of how they came by the money and where, and then with such witnesses as our detectives could drum up from the communities, and the stories they told or gave them, we would court-martial them, that is, try them; usually under the charge of desertion after enlistment, with their money; or as professional bounty jumpers, if we could discover that they had played the game over and over again. Many of them gave themselves away in their examinations, so that the detectives could find evidence enough against them, in case of trial. I got a great deal of experience during my stay at Indianapolis, as a member of many Courts-martial; and quite often was Judge

Advocate, or prosecuting officer of the Court-martial. We made a public parade at one time of quite a large bunch of these deserters and bounty jumpers, surrounding them as they marched with guards, and placing large posters, "Bounty Jumper", on their backs, went through the city, with a band playing the Rogue's March! A picture of the procession appeared in the newspapers of the city. The reason for there being so many bounty jumpers was that, on account of the draft, many men, either for family or business or want of sympathy for our cause, couldn't or wouldn't serve as soldiers, and substitutes got high prices for these men, hence the temptation and profession of bounty jumping arose. Of course, if in our investigation of them after our detectives ferreted them out, any could show good faith and prove themselves non-deserters, we released them. I was a member of a Court-martial which tried three of the worst cases of them, and after due deliberation, found all three guilty. They were sentenced to be shot to death. Executions are not, in similar civil proceedings, made public, but for the sake of the publicity, the order in this case was for the turn out of the regiment, which was formed in a public parade ground near the city, my company being in it. We formed on three sides of a large square, with the three coffins side by side, at the open space. A squad of a dozen or so soldiers were lined up in the square facing the coffins, an officer in command; their guns all loaded with ball, except one—they not knowing which gun was not loaded. The prisoners were all brought blindfolded and seated upon the coffins on the near end and face toward the firing party. A command was given to the regiment—"Parade Rest"; then a guard came forward to the prisoners and led one of them off. (This one, it seemed, because of some doubt, was held for further consideration.) At a signal, the firing squad took aid and at the drop of a handkerchief, fired! At the same instant the two sitting prisoners fell, one back on his coffin, the other forward in a heap. The gun not having a ball in it was loaded with powder and wad; the guns had all been loaded by others than those who pulled the triggers, so that each man could not be sure it was he.

I might say that the money taken from these and other bounty jumpers was usually found inside linings of

coat, vest or pants, sewed in or in the stockings. It was listed, as to name and date, reported, and receipts for it taken from paymasters. I find some of these receipts still in my possession. About this time we were having reports from our detectives and the civil authorities that there were a large number of what were known as "Knights of the Golden Circle", a secret organization of "Confederate sympathisers", "secessionists", "copperheads". In order to understand the following part of my "experience", I quote briefly from an article in the Outlook, of February 18, 1911, historical of the times of Gov. Morton *et al*, and the Indiana political conditions at the early part of the war:

> "Indiana was the most doubtful state in the North, the state in which the Confederate sympathisers formed themselves into secret organizations such as "The Knights of the Golden Circle", and were bent upon accomplishing their purpose by voilence. A vivid picture of just what the Southern Indiana secessionists really were is given in Phoebe Brown's "Knights in Fustian". There was nothing from armed revolution to assassination which they did not threaten. They were frankly disloyal to the Union and frank in their advocacy of the success of the Confederacy. Indiana's geographical position was such that secessionists' control of the state would have split the Union, from the Canadian border to the edge of the Confederacy, nearly in two."

Then follows account of the great credit due to Gov. O. P. Morton for his arduous work in holding these movements under, all of which is right and true, provided credit is also due to others. I only quote the above here because what I wrote home of our doings, as to unearthing and defeating the secret plots and plans of these "Copperheads," as we called them, made some of the same at Brookville take umbrage at the use made of my letter as "Republican campaign thunder", in those dark days. There was no question but that we had abundance of evidence of a plan and purpose of collecting in such strength and numbers and with arms, and releasing the Confederate prisoners at our Camp Morton and at the prison camp, called Douglas, at Chicago. At an alarm of a secret attempt at the prison, troops from Indianapolis (I with my company included) were ordered to Chicago. We went by rail, marched out to Camp Douglas and with other troops were posted as guards and pickets around that prison all one night and day. We had other alarms, by unusual numbers of men coming concertedly at and around Indianapolis, on the railroads com-

ing into the city. My guards and detectives, in conjunction with others, unearthed and brought forth from storage in hidden rooms in the city, large boxes containing arms, marked "Sunday school books", which I saw myself, and upon the arrest of Dodd, Milligan, Bowles, and Horsey, notorious conspirators of the gang described above, furnished the guards over them while they were held for trial; they were of the same class as the then notorious Valandingham of Ohio, the violent Southern sympathiser. Our guards unfortunately let Dodd escape—how we never knew—but he fled to Canada. About this time I held the position for a time, of "Commandant of the Post", appointed by Gen. J. S. Simonson.

In the meantime I had become acquainted, by attending Sunday school as a member of the young men's and ladies' class of a New School Presbyterian Church, with many families of prominent citizens of the city—bankers, lawyers, wholesale and retail merchants—and through these friendships was invited to many social features; took part in local entertainments for public benefits, aiding in the singing of choruses and as a member of a local orchestra; escorting young lady friends to operas, shows, etc.; all of which I enjoyed very much! I kept a fine chestnut bobtail pacing horse, which my lady friends very much liked to ride and use. I also kept a gray racker, which I rode and used with parties of ladies. These horses I was allowed in my military positions. From my Soldiers' Home position I would ride to church and hitch nearby. One Sabbath, my chestnut, after standing impatiently, was in too much of a hurry and dashed off before I was fully seated and prepared; this time the streets were muddy and before I was seated and my feet in the stirrups, off he shot towards Circle Street. My own congregation and two other churches were out at the same time on this Circle Street, with people filling the sidewalks. At the circle, my horse was practically running off, beyond my control and rather than risk being thrown upon the muddy cobblestones by letting him turn short at any outgoing street, I kept him going around the circle until I could get control, and my dangling feet in the stirrups. Of course he made the mud fly! One shoe flying into the air and to the pavement, to the menace of those men, women and children. After about two

rounds, I finally got him under control and rode off to my boarding house. For months after, I frequently heard good natured fun made and allusions, referring to what seemed to me my very ludicrous performance, which every one seemed to dub "Captain Craig's 'John Gilpin' Ride"! I think my very good friend, Miss Sue Ketcham, dubbed it that and *it was a go!* Several things (if one may tell of jokes at his own personal expense) I might mention here; I was walking one morning opposite the Bates' House, dressed in my frock, light blue uniform coat, buttoned at waist, blue satin vest, dark blue double stripes on side of light blue pants, cap with gilt eagle in front, perched a little sideways on my head. I passed some saloons—some gamblers loafing on chairs leaning back with heels upon the rungs (it was rather a disreputable gang, usually there). In passing, I overheard one say—"Jim, what do you think, if I could buy that fellow at his *real worth* and sell him at *his own estimation of himself*, wouldn't I make a speculation! Whew!" I didn't turn but was inwardly amused greatly, as I walked on smiling. At another time, six of us officers, among them one of our practical jokers, a friend named Lt. Thomas Lord, were riding horseback up Meridian Street, abreast. Ahead of us was quite a fine building, surrounded with grounds with beautiful flowers and shrubbery; on the porches, front and side, ladies standing in groups—Lord, as we approached, began waving his handkerchief at them. I remonstrated at this, as an impropriety, but he kept it up boldly (I believing them strangers, for we were then new in the city and I felt we ought to observe proprieties, as U. S. officers stationed there); Lord then turned to the other four comrades saying, "Capt. Craig doesn't know that's a Blind Asylum!"

Lord, who was a presbyterian preacher's son, had had his left leg shot off below the knee. He later became Assistant Adjutant on Gen. Alvin P. Hovey's staff, when he commanded the department. I wanted a leave of absence to go home and the customary thing was to make some excuse in your application. I had been sick a week, with fever (the only sickness while having been nearly five years in the army); Lord knew that for it was at our common boarding house; he also knew that I had been off duty several days with rheumatism, my doctor using live leech-

es, which he had hanging and sucking blood from my right knee, much to Lord's amusement and joking nature. But he knew also that I was in good shape at the time my application went to Gen. Hovey's headquarters and it came back with the following endorsement across the back—"Respectfully returned. *Not granted* on account of exigencies of the service required. Captain Craig is respectfully recommended to *take a dose of Mrs. Winslow's soothing syrup!* Major Gen. A. P. Hovey, Commanding Department, Thomas Lord, Lt. and Adjutant." Of course I took my medicine with as little facial contortions as possible; but it wasn't long until I got my trip home, via New York, with some squad of soldiers and transportation, and came home via Philadelphia! I had a short visit.

We had a very nice officers' mess or boarding place in a pleasant family that made us all have a pleasant time at table, with our jokes and fun, songs in the parlor, and we were on very pleasant terms with our landlady, Mrs. Foust. She gave birth to a child, and her husband, being an engineer on the Terra Haute Railroad, was absent at the time; I'm not sure but think Lt. Lord had his work in what now happened. Knowing when the train would arrive, the nurse, or somebody, borrowed a babe and had it covered up with Mrs. Foust's. The room was full of friends, when Foust entered and when he rolled the cover back, beside the mother, lay two! Foust looked and like a flash said, *"Did any get away?"* Then a burst of fun, of course, but none of us knew whether he "caught on" or was in earnest.

* * * *

When the news flashed to us of the assassination of our beloved Lincoln, a dark pall of gloom settled upon all the people. It seemed to impress the whole people with *horror* and *deep indignation unspeakable!* At the time I was on the main street (Washington) and meeting many friends; those who *could* speak, if it were not for breaking into tears, spoke with bated breath. I could not *express* my horror and grief; it seemed to take time, we were so struck dumb! Others like myself affected, would just take my hand and the bowed head and inabliity to speak, as well as sympathetic eye and feeling, made each understand. Gradually and slowly this wore off and there was not much attempt made to even think of the possibili-

ties that might come next; the effects and results of it seemed impossible of even conjecture; most anxious were we for further news; who, why, what for? Then those known to have been out of sympathy with Lincoln and his administration—how quiet, subdued, even cowed they were, knowing it would certainly be extremely dangerous to give expression publicly, at the time of such a condition of indignation as was so evident everywhere. An unfriendly remark, or one counter to the prevailing feeling, would stir and boil into fury, under the conditions existing that first day! Yes, for days there was caution. I think they were so impressed, that expressions, indulged in but a few days ago, would now cause one, fool hardy enough to indulge in them, to be trampled into the dust of the streets! The almost universal shadows over the whole people were long in lifting. News was quieting; no uprisings; the expression of Garfield at New York, "God reigns and the Government at Washington still lives!" Calm gradually came; interest in the search for the assassin and murderer; things doing and to be done; arrangements for the funeral, final burial and resting place; the opportunity for so many people to have a view of their loved and mourned President. I felt deeply the opportunity and the great honor of being detailed as one to march with the pallbearers from the depot and as one of the Special Guards over the remains of the President's body while lying in state in the Capitol. I have the order preserved yet, detailing me.

The following is a copy:

Capt. Samuel A. Craig, V. R. C. U. S.
Instructions

1st. First watch of guard of honor will meet the remains of our beloved President at the Union Depot.

2nd. Will march thence with sword reversed to the State House in the following order—Senior Officer in front, next in rank in rear and two on each side the remains and outside the pallbearers.

3rd. When the remains are placed in the Catafalque, at the State House, the Guard will be posted as above, at the head and foot of the remains, all facing to the left, maintain this position during their entire tour of duty and until relieved.

4th. Ordinarily, whilst on foot, swords will be held at parade rest or attention, point down.

5th. It will be the duty of the Guard to prevent all persons from touching or molesting the remains or accompaniments except those specially detailed to handle them, and the pallbearers.

Place of assembly at Adams Express Office at Depot, time fifteen (15) minutes before 7 o'clock A. M.

J. S. Simonson, Col. U. S. A.

It was an impressive, solemn march, with funeral dirges by bands; our place outside the pall bearers, but alongside the hearse, which bore the remains up the street to Washington Street, the main street of the city; thence to the Capitol grounds; the sides of the streets, pavements, windows, doors and every conceivable space where any person could occupy, were densely packed with humanity, the Capitol grounds likewise. Arriving there, the pall bearers with the coffin, took the lead and we, as Guards, followed; when the casket was in place in the center of the rotunda of the Capitol, we Guards took our places; my place was at the foot, right side; another officer at the left; I was opposite E. D. Townsend, Adjutant General of the Armies of the United States; on his right, another officer. I could look directly into the cold dead face of the President, during my tour. His face looked natural. The casket was pretty well covered with choice flowers; the massive columns and sides of the large rotunda of the Capitol were draped with silken flags and crape, and numerous beautiful emblems of mourning; the dome high overhead was covered with blue, bespangled with bright stars; far overhead, unseen amid the drapery, were bands of music, which continually played rather softly and solemnly, funeral dirges; but as it was far over us, it sounded subdued, sweet and tender to me, feeling as I did, as if 'twere the music of angels in sympathy with those mourning below. During the long, long march in twos, of the people, I watched the expression of their faces; some passed with but a side glance; others hardly a glance, really less at the face than as if struck with the mournful display, or possibly to them curious surroundings, but again, frequently, there was an instant pause, a look, a quiver of lip, a sympathetic tear, a sad face nervously hurried on; some eyes wandered to the display of flowers, the guards, military figures, etc.; occasionally an expression would be voiced aloud, indicating feeling; many showed the springing tear; one woman hesitated, bending as if about to caress, when I thought I saw Gen. Townsend make just a preparation of a movement of hand to ward her off. As the eye took in Lincoln's face, there was much thought in the heart of any who knew him as I felt I did, remembering when a printer's cub, I read his stirring words in debates with

Douglas; remembering how I was in sympathy with his views on the slavery question; how when I first heard, in the rotunda of the Capitol at Washington, in the early days of '61-62 (while I was still so green and raw and dressed in my blue blouse, pants and cap) some one say—"There's Lincoln!"—and looking, as he and Secretary Stanton passed within a few feet and I saw his face, I ran through the crowd twice to head the tall gaunt figure off, for another look, and again, for the third time, to study his face, and now—there—dead—murdered! Oh, the pity of it all! Thoughts of our Country, its peace; then the sounds and sights of war; my feelings at enlistment; my small part in it—meantime, knowing his burdens, anxieties, hopes; patience with his Generals; of our often defeated Army of the Potomac; and just when he had succeeded in getting a fighter who practically had a grip on the staggering, falling Confederacy, with the end in sight (Lincoln seeing it, too) to be foully assassinated; cut off in sight of the peace he so much longed for, after all he had suffered. Yes, the notes of my diary written then, has it as the thought and look that day, away down through the dim vistas of the future, my feeling that the then pulse of the nation would be—"*no one* who has held arms in his hands against him and our loved country could possibly ever be allowed to put *that hand* upon the guiding wheel of our great ship of state!" Remember I was young, deeply patriotic (if somewhat sophomoric) in thought in that day's dreamy, almost boyish look into the dimness of the unknown future *after the war* and I record what I was thinking then, whatever may be different *now* in our kindly sentiments towards our former enemies.

May 22nd ,1865. By order of Col. A. J. Warner, Commanding Post, started for Washington, D. C., with a lot of stragglers, to return them to the army. A great good fortune, for it gave me the opportunity to see one of the greatest sights that has occurred in the whole history of our Country—the Grand Review of the Armies of the United States—the veteran, victorious, bronzed soldiers of the Grand Army of the Potomac, the army of Tennessee, "Sherman's Right Wing" and the Army of Georgia, "Sherman's Left Wing", as they were called, together numbering 100,000.

May 23, 1865. The Grand Army of the Potomac, Gen. Meade at the head of 75,000 veterans, returned for the last time to the city it had so often defended, on Virginia's hard fought battle fields; they came, twenty abreast, marching so splendidly along Pennsylvania Avenue. What a picture. looking from the Treasury Building towards the Capitol, nearly a mile away; that broad avenue, filled with them, now infantry, now cavalry, now artillery; their flags, standards and guidons; waving with the light breeze! All fringed with the green of trees, houses with multitudes of soldiers and citizens on roofs, and massed thickly on the pavements!

Then May 24th, second day, came the Army of the Tennessee and the Army of Georgia, led by Gen. W. G. Sherman, bowing right and left, with Generals Logan, Custer, Blair and others, as each was recognized and received with ringing cheers by thousands of admiring friends! And yet with all this applause of appreciation at the victorious hosts and the pomp of so great and fine a military pageant, I seemed to feel that much of it was, among citizens as well as soldiers, the joy of knowing it to be the end of a long, wearisome and terrible war!

> "For the war-drums throbbed no longer,
> And the battle flags were furled!"

And there was, too, a feeling of pride mingled with the joy, as they looked upon those flags and standards, tattered and torn by the rushing bullets of many battles, and with them the memory of that spectacle of the brave rush up its sides and fight "above the clouds" on Lookout Mountain and the romantic, yet mysterious—"Sherman's March to the Sea!" In the crowd were heard cries of "Sherman!" "Sherman!" "That's he!—that tall man there!" Then came the "Banner Brigade" led by a sable warrior on a diminutive donkey! Mules! Mules! Of all shades; tall mules, small mules; laden with gathered plunder from ears to tail. On one, a goat standing upon a saddle; upon another a poodle dog; then coons; two roosters standing and looking around, with two little curly-headed pickaninnies; and an occasional donkey literally strung from neck to tail with pots, stew-pans, coffee pots and skillets dangling, led by a "contraband of war".

From that position of observation by the Treasury Building, where the distance, down the Avenue to the Cap-

itol, "lends enchantment to the view", I wandered up to 15th St. to where Pennsylvania Avenue turns left towards the Army and Navy Building. I managed to find a footing on high stone steps, where, on up the avenue, I could see the grand stands along Lafayette Square, and also on the left and in front of the Navy Building and White House Grounds one could see, half a square away, the Reviewing Stands with President Johnson; General Grant, Commander in Chief of the Armies; the members of Cabinet, Senators, Congressmen, Ambassadors and many other prominent officials. Here opportunities occurred for seeing details which I took advantage of; for instance, as infantry marched, cavalry rode, or artillery drove by, with their guns and caissons, there would be occasionally an interval or gap between (as is true in every march) and the great crowd would break over or under the big wire cables by the streets and rush up that half square to the front of the Reviewing Stand, which rush I would take advantage of and join, and thus get a few seconds close view of the occupants of that stand—Grant, Johnson, Stanton—and I remember Col. Parker, the half Indian of Grant's staff, was pointed out to me and recognized from his pictures that I had seen. Here also, Corps, Divisions, Brigades and their Officers, approached that stand, did their best in marching, alignment, carrying of arms, manner of sitting on horses, saluting, etc. Here also one could notice friends, placing wreaths of flowers upon the necks of officers' horses, boquets in the muzzles of muskets of the veterans, as they marched. Sometimes beautiful wreaths appeared upon the arm of a General or Colonel, passed in from some admirer in the crowd. I noticed one large band of music manoeuvering in formations, squares, stars, circles, in marching, fine display of uniforms, brilliant shining of instruments and such good inspiring music, that they elicited from the street and grand stands, loud clapping and even cheers and were presented with boquets of flowers. At another point, at the time of one of those unavoidable delaying short stops, an officer gave a few moments of especially fine and accurate drill, which so astonished and pleased the crowd, that appreciation was simply tremendous from all within view and hearing, for instance, in the manual of arms of a large body, every movement was executed with uniform-

ity and exact precision, such as, at command, "Order, Arms", the butts of their muskets struck the ground as *one!*

During these two days that I remained in the city, among the estimated 60,000 to 70,000 visiting citizens and outside soldiers, there were frequent and almost universal expressions of what the wise king of Scripture speaks of as "a sorrow that pervades the heart in the midst of laughter"—that our beloved, martyred President, Abraham Lincoln, was not there to witness that pageant! Crowds linger around the theatre and the house where he breathed his last. Nothing, no, not even the victories of these brave soldiers and others who have fallen nor the pleasing prospect of their—"homeward bound" "the war is over" have served to restrain these utterances of sorrow. I realize it to be here, among these people, who feel, think and often express the thought—"Had it been God's will to spare Mr. Lincoln's life, what an eclat his presence would have imparted to the mighty pageant! May we hope, as many no doubt believe, that "the spirits of the just made perfect" in the world above, will retain cognizance of events of this life, for to our reason it would be an anomaly that the so great and good Lincoln, who bore so much of the burden and heat of the Rebellion, should know nothing of this sublime panorama which signalized its close! My impressions of the Grand Review, as I sit in the hotel this evening and meet many—hear the expressions all about the streets and other places about the city among the great crowds, is that of a very sympathetic feeling; everybody everywhere, delighted, appreciative, praiseful; gratitude and credit to the bronzed heroic veterans who had borne so much and so well the hardships, trials and sufferings of a long war, and were now about to return to their rest from it all among friends of *Home,* yes, to them, *"Sweet Home"!* How much it means to them and this distribution to the homes of the North, of those many thousands! God bless them! And our comrades in arms who fell by the way! Oh, the pity of it all! They, too, have already gone before to *their* rest, but not to return home. Here I am thinking of my Captain and his brother, whom he caled Jimmie. Jim was in camp at White Sulphur Springs, fall of '63—the sun so hot it was fairly frying the grease

from the bacon rinds near the cook's quarters where we were standing, suffering from its glare upon the sand for want of shelter from its burning rays. Jim, looking at my Kearney pin on the lapel of my coat, read its Latin motto, *"Dulce et decorum est pro patria mori"* and asked—"What does that say, Captain?" I answered,-"It says 'Tis sweet and glorious to die for one's country' ". He wiped the dripping sweat off his forehead with his bare hand saying,—"That's all very fine and poetic, Captain, but as for me (with a twinkle of the eye) just *now*, I'd rather *live* in old Pennsylvania!" And yet, friends, after several battles more for him, he willingly offered up that life at the Battle of the Wilderness, upon the altar of his country! Another member of my Company, another Brookville lad, Coursin Miller (after using his gun nearly all day until his hands and face were blackened with powder, was shot dead at Charles City Cross Roads battle, brave among the bravest. A few years after I was in the woods near his Brookville home when seeing names cut in the bark of a tree, I identified his, fast being grown over and obliterated. He had in boyhood cut it there and it is now like his name and memory in Brookville, almost forgotten by all our citizens, whereas his name, like the names of John C. and James C. Dowling and many other brave lads of our county, should be enrolled (somewhere less obscure than on the rolls at Washington) where they, with others, would shine until the bright stars grow dim!

Doesn't it thrill a fellow—make a glitter in his eye
And a fidget in his footsteps—when the boys go marching by,
Old memories throng around him—with no regret nor sigh,
He hails the shining columns as the boys go marching by.

Doesn't it thrill a fellow—wrinkled and gray he stands,
But oh, the gleam of the bayonets and the banners and bands.

July 17, 1865. By order of Col. J. S. Simonson, U. S. A., was relieved from duty as Post Provost Marshall of Indianapolis.

July 28, 1865. By order, again take command of Co. A., 17th V. R. C.

(TO BE CONCLUDED)

The Pioneer Iron Industry In Western Pennsylvania

By George W. Hughes

It has been said that iron ore is more important in the development of a nation than wheat because there are substitutes for wheat, but there is none for iron ore; and without iron ore we can have neither iron nor steel. The story of steel is the story of the industrial development of this country. Steel is the most universally useful and important product of the world.

The discovery of iron ore in America, briefly stated, was the result of a romance between Queen of England and Sir Walter Raleigh. About 90 years after Columbus discovered America, Queen Elizabeth fell in love with Sir Walter Raleigh and gave him a grant of land in America in what is now the states of Virginia and North Carolina. Soon afterward Raleigh sent men over to explore his new possessions. When they returned to England, they reported having found iron ore in great abundance. This was the first discovery of iron ore in America. Soon a company was formed, and men were sent over here to build an iron works on the New Continent. A site on the James River in Virginia, about 60 miles above the present town of Jamestown was selected. They erected a small village and built a forge, and first made iron in 1620. Two years later there was an Indian uprising, and all the people were killed with the exception of one boy. The village was burned and the iron works destroyed. It was never rebuilt. The cinder that marks the location of the furnace and the old ore pits, where ore to supply the furnace was dug, is all that remains today to commemorate the story of the first martyrs to the iron and steel industry in America.

In 1716, the iron industry in Pennsylvania had its humble birth in the forests of Berks county. Two men, Thos. Rutter and Thos Potts, built the Pool Bloomery forge on a creek near the present town of Pottstown. Four years later they erected a blast furnace and named it "Colebrookdale".

*Read before the Westmoreland-Fayette County Branch of The Historical Society of Western Pennsylvania.

The capacity of this furnace was, from two to three tons of iron a day. The most of the iron was made into stoves and sold to colonists. Recently one of the stove plates was dug up and found to be in a good state of preservation. It bore the name "Colebrookdale" and "Thos Rutter." The plate is now in the Pennsylvania Museum in Philadelphia.

One of the oldest furnaces in Pennsylvania worthy of note was the "Durham" furnace at Reiglesville, Pennsylvania, on the Delaware river, built in 1727. To transport the iron down the river to Philadelphia, long flat bottom boats that carried 15 tons were used. These were the boats used by General Washington in his historic crossing of the Delaware the night he surprised the English and Hessians at Trenton. The original stack was replaced by three other stacks which were operated until 1912, making almost two centuries of continuous iron making on the same location. So rapidly did the iron industry develop that by the time war with England broke out in 1775, the Colonists were able to make their own war material with which they defeated Britain in the war for Independence. The first iron west of the Allegheny Mountains was made in Fayette County. F. H. Oliphant of Uniontown credits John Hayden with having made the first iron in a blacksmith forge in 1790. Hayden carried a sample of the iron on horseback to Philadelphia, where he interested John Nicholson in a proposition to build a blast furnace at Fairfield, seven miles south of Uniontown, on George's Creek. In the spring of 1789, John Hayden hauled a four-horse load of store goods from Hagerstown, Md., to Brownsville for Jacob Bowman, a merchant, and pleased with the beautiful valleys west of the mountains, decided to settle in "the West" and bought out a settler near what is now Fairchance. Hayden and Nicholson took up a tract of land near the base of Laurel Hill, where Fairchance is now located, and built a little furnace called Fairfield. The enterprise was not a financial success, and, in a few years, the property fell into the hands of F. H. Oliphant's father. It may be set down as a fact that John Hayden made the first iron west of the mountains, but he did not get his furnace into operation until others, profiting by his discovery, built furnaces and began the manufacture of iron.

The earliest official reference to the existence of an iron works in Western Pennsylvania is found in the court records of Fayette County. At the June term of court in 1789, reference is made to a "road view" for a road from the furnace on Jacob's Creek to Kyle's Mill. This is the earliest official reference to any iron works west of the mountains and confirms the statement that the Jacob's Creek furnace was built prior to 1790. Bishop says that the first furnace built in Western Pennsylvania was built by Turnbull, Marmie & Co., of Philadelphia, on Jacob's Creek in Fayette County, about two and a half miles from where it flows into the Youghiogheny River. The furnace was built in 1789 and blown in November first and was known as the"'Alliance Iron Works". The firm was composed of Col. John Holker, Wm. Turnbull, and Peter Marmie; the first two were engaged in the iron business in Philadelphia, and Marmie was a Frenchman, who came to America during the Revolutionary War as Private Secretary to Lafayette. He liked the country and remained here after the war. William Turnbull, one of the owners of the Jacob's Creek furnace, had been purchasing agent for the Pennsylvania troops during the Revolution. After the war, the three formed a partnership and started a mercantile establishment at the "Point" near Fort Pitt in Pittsburgh. Marmie managed the business in the West and Turnbull remained in Philadelphia. The marked success the firm met with induced the partners to build a furnace west of the mountains. They made castings required by the settlers such as: stoves, grates, pots, and skillets. On the sixth of January, 1792, Major Craig, Commandant at Pittsburgh, placed an order for four hundred six-pound shot for the garrison at Fort Pitt. It is stated on good authority that this furnace furnished shot for General Anthony Wayne's expedition against the Indians.

For some years the furnace did a large business and was the center of capital and labor for the whole region. It controlled the price of labor for the entire community and gave employment to many men. But the firm failed: for what reason, other than indiscreet management, is not known. The furnace was operated until 1802, when the fires went out and were never relighted. The stack is still standing and, with the exception of one corner that has fall-

en down, is in fair condition. Trees have grown up to a height of from 60 to 80 feet in what was once the casting beds. The writer was at the furnace a short time ago and picked up pieces of charcoal that were made 140 years ago. The property is now owned by the Jacob's Creek Oil Company. The extension of the Pittsburgh & West Virginia Railroad that is now building passes through the property and within three hundred feet of the furnace. There are no "slag dumps" at the furnace as are found at most old furnace locations, because, owing to the crude way in which iron was separated from the cinder, much iron was carried off in the slag and the slag has been hauled away to other furnaces to reclaim the iron it contained. Connected with this furnace is the romantic story of Marmie, the sporting Frenchman, who committed suicide by jumping into the open top of the furnace while in blast, after driving his dogs before him. Broken in spirit and in health by the loss of his fortune, he met the fate of the unfortunate, dying by his own hand. It would be a fine thing if this Society could preserve this Furnace for future generations. Its location is the birthplace of the greatest industry west of the Allegheny Mountains.

Union Furnace, now Dunbar, was built by Col. Isaac Meason, on Dunbar Creek four miles south of Connellsville and was put in blast in March, 1791. It is said that Col. Meason came over with General Braddock thirty-five years before on his disastrous trip to Fort Duquesne. Two years later, Col. Meason, John Gibson, and Moses Dillon formed a company known as Meason, Dillon & Co., and built a much larger furnace on the site of the old one. They also built and operated a foundry in connection with the furnace. The new firm produced large quantities of castings, stoves, pots, and sugar and salt kettles for which they found a ready sale. The following advertisement of their business appeared in the Pittsburgh *Gazette* of April 10, 1794: "Meason, Dillon & Co., have for sale at their furnace on Dunbar Run, Fayette County, three miles from Stewart's Crossing, on the Youghiogheny River, a supply of well assorted castings which they will sell for cash at the reduced price of 35 pounds per ton ($93.33)." In 1804, Union furnace filled a large order for sugar kettles to be used on the sugar plantations in Louisiana. The works was operated by various

men until 1868, when it passed into the hands of the Youghiogheny Iron and Coal Company. In 1871, the company was reorganized as the Dunbar Iron Co. and later as the Dunbar Furnace Company. During the late war, the furnace was operated by the American Manganese & Manufacturing Company of Philadelphia. The company failed Nov. 28, 1922, and the property was sold April 28, 1924, and was purchased by the bondholders, who formed the Dunbar Corporation. The original stack was replaced by four other stacks which were operated until 1922, thus making 131 years of continuous iron making on the same site. The furnace was dismantled in 1928, and the work it did in developing this country has passed into history. It is worthy of note that the first fire brick hot blast stoves were erected at Dunbar and the first by-product coke ovens were built at Dunbar. Another of Col. Meason's enterprises was Mount Vernon furnace on Mountz Creek, eight miles from its mouth. It was built of large cut sand stone according to an old advertisement before 1800 and is still standing.

Besides these more important furnaces, there were many others. Laurel furnace on Laurel Run, near Union Furnace, was built by Mockbee and Wurtz, before 1800 and was rebuilt by James Paull on another site. The same firm built Hampton forge to work up the pig metal from Laurel furnace. In 1800 this furnace advertised for sale "Castings, neat, light and tough at $100.00 per ton; also bar iron nail rods and cut nails at 8 cents per pound." Cool Spring furnace was located on Shut's Run, in North Union Township, Fayette County. The furnace was built by Thompson McKean in 1816 and operated by him until 1842 when it passed to other hands and the fires went out. Wharton furnace was built by Hon. Andrew Stewart in 1837. Its location is a short distance south of the National Pike and just east of the Summit in Wharton Township, Fayette County. This furnace was operated intermittently and changed owners frequently, until 1875, when it was blown out and dismantled. The Oliphant furnace was the last furnace with which F. H. Oliphant was connected. It was located four miles south of Uniontown on the Southwestern Pennsylvania Railroad. This furnace was built by Oliphant after he had disposed of Fairchance and Spring Hill furnaces. He operated the furnace for a number of years, but the enterprise

proved disastrous. Redstone furnace, three miles east of Uniontown, was built in 1800 by Joseph Huston. It was later owned by his nephew, Judge John Huston, and still later by John Snyder. Spring Hill furnace was built in 1805 by Robert Jones and was later owned by Jesse Evans. Mary Ann furnace, nine miles from Uniontown, was built by Richard Lewis in 1800 and in 1818 was bought by Joseph Victor, who was living on the premises and was 90 years old in 1877. Victor rebuilt the furnace and changed the name to Fairview. Lesser furnaces built in Fayette County early in the past century were: Pine Grove, 11 miles from Uniontown, built in 1805; Mount Etna, 1½ miles above Connellsville; Center Furnace, 9 miles from Uniontown, on Dunbar Creek; Fayette Furnace, 12 miles from Connellsville; Little Falls, 12 miles from Uniontown, built by Nathaniel Gibson; St.John's, built by James Paull, 8 miles from Conellsville. There was a forge at Little Falls built in 1809. Findley furnace, 4 miles northeast from Connellsville, was built in 1826.

In 1805 there were four furnaces and six forges in Fayette County. In 1811 there were ten furnaces and eight forges and one furnace for making steel. The steel furnace was located at Bridgeport, near Brownsville, and was owned by Morris Truman & Co. It is said that it made good steel. It will be seen that Fayette County was a great iron center at the close of the eighteenth century. For many years Fayette and Westmoreland Counties almost entirely supplied Pittsburgh, the Ohio, and Mississippi valleys with pig iron, castings, and bar iron. A furnace named Mary Ann was erected very early twenty miles from Uniontown, in Greene County, on the opposite side of Ten Mile Creek from Clarksville. This furnace was abandoned about 1820 and was the only Blast Furnace ever erected in Greene County. Pine Grove Forge was built by Thomas Lewis prior to 1798 and was located on Pine Grove Run, about four miles from Smithfield, in Georges Township, Fayette County. Lewis became involved financially in 1799 and in 1800 the forge and 600 acres of land were sold by the sheriff. It is said that the ore for this forge was carried in sacks on the backs of horses from the places where it was dug to the forge.

There were, too, many mills which made specific products. The first nail factory west of the Alleghenies was

built at Brownsville by Jacob Bowman, about 1798. Wrought nails were made by hand and were produced in large quantities for that time. The first rolling mill of any kind west of the Allegheny Mountains of which we can obtain reliable information is described in "Cramer's Pittsburgh Almanac", issued in 1812, as follows: "Jackson & Updegraff on Cheat River, have in operation a furnace, forge, rolling and slitting mill and nail factory—nails handsome and tough." Hon. James Veech records that its location was in West Virginia on the road from Uniontown to Morgantown and about three miles south of the Pennsylvania state line and eight miles from Morgantown. The first rolling mill erected west of the Alleghenies to puddle iron and roll iron bars was built in 1816 on Redstone Creek, midway between Connellsville and Brownsville, at a place called Middletown, better known as Plumsock, Fayette County. This enterprise was undertaken by Col. Isaac Meason of Union Furnace. It is extremely probable that, at this mill at Plumsock, the first iron was puddled and the first bar iron rolled in America. Careful investigation fails to discover in the United States any rolling mill to roll bar iron from puddled pig iron prior to the enterprise at Plumsock in 1817. Thomas C. Lewis, a native of Wales, had worked in a rolling mill in Wales before coming to this country. Lewis presented the matter to Col. Meason and was engaged by the latter to build a mill and put it in operation. Meason met with considerable success in its operation until 1824 when a heavy flood that year destroyed part of the mill. The machinery was subsequently moved to Brownsville. Christopher Cowan, an Englishman, built the first rolling mill in Pittsburgh in 1812, but this mill did not puddle iron nor roll bar iron. It rolled sheet iron and sheets for nails and spikes. This mill later became known as the Pittsburgh Rolling Mill.

You will notice that nearly all furnaces in the early days had a forge in connection with the furnace. Westmoreland furnace, near Laughlinstown, in Ligonier Valley in Westmoreland County, was built in 1792 by John Probst, who also built a forge. This plant ceased to make iron about 1815. Aug. 1, 1795, George Anshutz became manager of Westmoreland furnace after closing down the furnace at Shadyside. This was the first furnace built in what is now Westmoreland County. At this furnace, grape and

canister shot was made for use in the war of 1812. General Arthur St. Clair built Hermitage furnace, second furnace in Westmoreland County, on Mill Creek, two miles northeast of Ligonier on the road to Johnstown about 1802. The following advertisement appeared in *The Farmers Reg ister*, printed in Greensburg, Nov. 1, 1806. The advertisement had for heading "Hermitage Furnace in Blast" and read as follows :"The subscribers, being appointed by General Arthur St. Clair for the sale of his castings generally and for the Borough of Greensburg exclusively, they will contract with any person for the delivery of castings and stoves, for any number of tons, on good terms. Sample of castings and stoves to be seen at their store in Greensburg any time after the 20th instant." Signed—Henry Weaver & Son. In 1810, the Hermitage furnace passed from General St. Clair and stood idle for some time. In 1816 it was started again by O'Hara & Scully under the management of John Henry Hopkins, afterwards Bishop of Vermont. This is the only instance on record where a furnaceman ever became a Bishop. In 1817 Mr. Hopkins left the furnace a bankrupt and it was never again operated. General St. Clair died a poor man at the age of 84 in a log cabin on Chestnut Ridge and was buried in Greensburg. At one time he was considered a wealthy man but he spent all his money for the cause of the Revolutionary War and died in poverty.

There were five other major furnaces in Westmoreland County. One, Mount Hope furnace, was built about 1810, Donegal Township, Westmoreland County, by Traver & McClurg. Washington Furnace, near Laughlinstown, was built in 1809 by Johnston, McClurg & Co. This furnace was abandoned 1826 and rebuilt in 1848 by John Bell & Co. This furnace was in blast as late as 1859 and was then owned by L. C. Hall.

Ross furnace on Tub Mill Creek, in Fairfield Township, was built in 1815 by Jas. Paull, Jr., Col. J. D. Mathiot, and Isaac Meason, Jr. This furnace was abandoned in 1850. The furnace made pig iron, stoves, sugar kettles, pots, ovens, and skillets. Another furnace was built nearby on Tub Mill Creek, by John Beninger, about 1810. Baldwin furnace on Laurel Run, near Ross furnace, is said to have been built by Henry Baldwin, afterwards Judge of the United States Supreme Court. The early Westmoreland furnaces shipped

pig iron by boats or arks down the Conemaugh and Allegheny rivers to Pittsburgh and from there on the Ohio to Cincinnati and Louisville.

Other furnaces in Westmoreland County were: Mount Pleasant furnace, built in 1810 by Alexander McClurg; operated by a man named Freeman until 1820. Little is known of this furnace. California furnace, built by Col. J. D. Mathiot and S. Cummings about 1852, on Furnace Run, a branch of Loyalhanna Creek. Oak Grove, built in 1854 by Col. John Clifford, near Ligonier. Valley furnace, at Hillsview, 9 miles south of New Florence, built by L. C. Hall in 1855. Laurel Hill furnace, about 3 miles below Baldwin furnace, on Laurel Run, built in 1846 by Hezekiah Reed. Shade Furnace, built in 1807, was the first furnace built in Somerset County. It was located on Shade Creek. The furnace had a number of owners; it went out in 1858.

The iron industry in Pittsburgh did not have any existence until the nineteenth century. It is worthy of note that in 1792 a blast furnace was built at Shadyside in Pittsburgh and was abandoned two years later because not enough iron ore could be found in the vicinity to keep it in operation. George Anshutz, one of the pioneer manufacturers of iron in this country, migrated to the United States in 1789 from Germany. He located at a place now known as Shadyside, Pittsburgh, where he built a small furnace. It was expected that iron ore could be found in the neighborhood, but investigation developed that very little, if any, ore existed in that vicinity. Iron ore was found on Roaring Run in Armstrong County, from which ore was shipped in arks down the Allegheny River to a point near the furnace and from there it was conveyed by wagons or carts. Some ore was brought by wagons and ox carts from Fort Ligonier and Laughlinstown, but the expense of transporting the ore any distance in those days was too great to justify the operation of the furnace and it closed in 1794. After the abandonment of the Shady Side furnace, Anshutz accepted the management of the Westmoreland furnace, near Laughlinstown, and continued there for about a year, after which he moved to Huntingdon County and, with Judge Gloniger and Mordecai Massey, he built the Huntingdon furnace in 1796; Massey owned the land, Gloniger furnished the money, and Anshutz furnished the skill and ex-

perience. Anshutz remained at this furnace until he retired and he returned to Pittsburgh in 1833, where he died in 1837. Most of the iron produced at these furnaces was made into stoves and grates and sold to the settlers. The ruins of the Shady Side furnace disappeared with the building of the Pennsylvania Railroad in 1851, which was located partly on ground where the furnace stood. In digging the foundation for Alexander Pitcairn's house, part of the cinder bank was exposed.

The Cambria Iron Company was one of the pioneers in the iron and steel business in Western Pennsylvania. The company was organized in 1852 by Dr. Peter Schoenberger for the purpose of operating by lease a number of small charcoal furnaces in the vicinity of Johnstown. At that time the Pennsylvania Railroad terminated at Johnstown. Schoenberger was foresighted enough to see that the railroad would be extended to Pittsburgh and farther west and he immediately planned to build four coke furnaces. In 1853, before the industry got started, the company ran short of funds and failed. New capital was added and a second effort made to start, which also failed. The works were then leased to Daniel J. Morrell and Richard Wood under the firm name of Wood, Morrell & Co. Under the management of Mr. Morrell, the firm prospered and started on the way to prosperity and developed into one of the largest independent steel plants in the country. This plant rolled the rails for the Union Pacific Railroad, the first railroad across the continent. Dr. Schoenberger is credited with having built the "Juniata Iron Works" in Pittsburgh in 1824, which later became the forerunner of the American Steel & Wire Company.

Grant's Hill Works were erected in 1821 by Wm. B. Hays and David Adams where the Court House now stands. The Union Rolling Mill, built in 1819 and owned by Baldwin, Robins, Nickel & Beltzhoover, was the largest and most extensive in the country at that time, and was located in Kensington (pipetown). At that time the furnaces did not supply enough pig iron to supply the rolling mills and foundries and much of the pig iron was brought from the Juniata valley, across the mountains. The pig iron was generally hauled over the mountains in the winter time on sleds.

One of the early pioneers of South Western Pennsylvania, who contributed much to its development and success, was B. F. Jones, Sr., the founder of the Jones & Laughlin Steel Corporation. His ancestors had crossed the Atlantic with William Penn. Jones' father kept a little country tavern, as most people did in those days; and when the son was eighteen he tramped to Pittsburgh and got a job with a canal boat company. The third year he was manager for the company and the fourth year he was a partner in the company. About this time the Pennsylvania railroad was built into Pittsburgh. Young Jones looked far enough ahead to see that the business of the canal would soon be absorbed by the railroad and sold out his interest in the canal boat company and purchased a little rolling mill in Brownsville in 1852. In those days the people of Brownsville were aristocratic and objected to the noise and dirt of the rolling mill. Because of the opposition Mr. Jones met with, he moved his rolling mill to Pittsburgh, and in 1854 Mr. Laughlin, a banker joined him and formed the Jones & Laughlin Company. In 1861, Laughlin & Company built the first of the Eliza furnaces, which was increased to six blast furnaces in later years. The iron made at these furnaces was used at the plant of Jones & Laughlin Company. In 1900, the firm of Jones & Laughlin absorbed the firm of Laughlin & Co., and became the Jones & Laughlin Steel Corporation of today. New furnaces and mills were built, and today the little rolling mill at Brownsville has grown to six blast furnaces in the Eliza group, one at Soho, and five at Woodlawn, with steel mills to work up all the iron they produce. Thus the little rolling mill at Brownsville, 76 years ago, has grown into one of the largest independent steel plants in this country.

It is worthy of note that the ground made historic by Braddock's defeat is the exact location of the Edgar Thompson steel plant of the Carnegie Steel Company. This immense plant consists of eleven blast furnaces and steel works stretching along the Monongahela River for some distance. It has been the admiration of the iron masters of the world. Some of the veteran furnace men of the country served their time at this plant. Among them were Captain Bill Jones, James Gailey, Jas. Scott, and others. It was at one of these furnaces that Capt. Jones

was killed in 1889. After the building of this plant, Andrew Carnegie enters for the first time the story of steel; up to this time Carnegie had made iron but not steel. The first Bessemer steel rails rolled west of the mountains were made at this plant in 1875. At this time steel rails were selling at $120.00 a ton. This plant revolutionized the steel industry in this country and was the beginning of the immense Carnegie fortune.

The blast furnace at the beginning of the nineteenth century was simple in construction, consisting of a mass of stone work, either built round or square on the outside and barrel shaped on the inside, and lined with sand stone, ranging from twenty-four to forty feet in height and about twenty-four square at the bottom. The furnace was usually built against the side of a hill to avoid the necessity of hoisting the coke, ore, and limestone to the top of the furnace; the stock yard on the hillside was connected to the top of the furnace with a bridge over which the raw materials was delivered to the top of the furnace. The charcoal, ore, and limestone were placed in the furnace in alternate layers and the blast was supplied at the bottom of the furnace through a tuyere. The furnace was always built on a stream large enough to furnish water for an over-shot water wheel which furnished power to force the air into the furnace against one-half to one pound pressure per square inch. The air was compressed by a large double bellows, and a later improvement was the use of wooden cylinders with pistons which alternately received and compressed the air before passing it on to the furnace. The air was pumped into the furnace at the atmospheric temperature, and was known as "Cold Blast". The furnace was generally built in the vicinity of the ore to avoid transportation of the heavy material. Transportation in those days was either by horse or oxen drawn carts or wagons. Wood from the cleared forests furnished the fuel for smelting the ores; and in most parts of Pennsylvania strata of limestone furnished the flux. The molten iron was drawn off at the bottom of the furnace through the "iron notch". When the furnace was ready to tap, a hole was drilled through the iron notch, and the iron was drawn off and ran into sand beds, which had been moulded up preparatory to casting. The name "Pig Iron" was given to the iron,

and the long runner through which the iron flowed into the moulds is still known as the "Sow". The product of these early furnaces was from two to three tons of iron in a day.

Contrast this with the modern blast furnace plants along the Monongahela Valley today. Now great steel stacks tower 100 feet and over in the air, with a miniature double track railroad from the ground to the top of the furnace to carry the ore, coke, and limestone for charging the furnace. The modern furnace uses from 2500 to 3000 tons of ore and fuel every twenty-four hours. The modern blast furnace requires four hot blast stoves to heat the air to 1000 degrees or over before it enters the furnace. A train of ladles carries away the slag from the furnace, and another train of ladles carries the hot metal from the furnace to the Open Hearth furnaces where it is made into steel or to a Pig Machine where the metal is cast into pigs. A boiler plant of from four to six thousand horse power furnishes steam to operate enormous blowing engines or steam turbines to supply air to operate the furnace and power to drive the great generators which furnish electric current to drive the mechanical equipment of the plant. The fuel to supply the boilers is furnished by the waste gases escaping from the top of the furnace after it has done its work smelting the ores. In the early days of iron making the gases escaped into the air and were lost. The product of the blast furnace has increased during the last century from two to three tons of iron a day to 700 and 800 tons, and as much as 1000 tons have been made in twenty-four hours. It now looks as if the blast furnace making 400 or 500 tons of iron a day will soon be consigned to the scrap heap, and the ideal furnace will turn out 1000 tons of iron or more. Notwithstanding all this change in scenery and equipment from the pioneer furnace of a century ago, the same action which took place in the early furnace goes on in the modern giants of today.

The history of the iron industry in Pennsylvania may be divided into three distinct periods; first, from 1720 to 1840 was the era of charcoal practice, when charcoal was the only fuel for smelting ores. It was also the period of stone stacks, cold blast, and water power. The second

period was that in which anthracite coal was used as fuel. Although anthracite was not used as fuel for iron making west of the mountains, it was used to a great extent in the East for about forty years. With the use of anthracite as fuel, came the steam blowing engine and hot-blast stove. The third period was that of coke manufactured from bituminous coal. With this also came the skip hoist, higher temperatures, the Bessemer process for changing pig iron into steel, the pig machine, and electrification of equipment. The next period that will be written of will be that of iron making without fuel. The rivers and water powers of the country will furnish the power and the heat to smelt the ores. As charcoal contains no sulphur, it is the ideal fuel with which to make iron; it makes a better grade of iron than other fuels, but as the timber supply of this country is limited, it is quite impossible to make charcoal iron to supply the needs of the country.

As coke is germane to our subject, and the immense iron and steel business of Western Pennsylvania has been built upon the fuel furnished by the Connellsville coke region, it is not going afield to refer briefly to the first use of coke for the smelting of iron ores and the development of its manufacture. The early history of coke making in the Connellsville region is more or less obscure; but we do know that coke was made in this region early in the nineteenth century, but it was not until 1836 that it was made commercially. Dr. Frank Cowan states that in the summer of 1841, William Turner, Provance McCormic, and Jas. Campbell employed John Taylor to build two ovens for making coke on his farm lying along the Youghiogheny River two miles south of Connellsville. The ovens were of the beehive type and about ten feet in diameter. After repeated failures, a fair quality of coke was made, and by the spring of 1842 enough coke had been made to load a 90 foot coal barge. During the spring freshet this boat was run down the Youghiogheny, the Monongahela, and the Ohio rivers to Cincinnati, where a purchaser was found after some difficulty. The coke was sold at six and one quarter cents a bushel to a foundry man, one-half cash and one-half in castings. The men lost heavily on the enterprise and became disgusted with the

outlook for marketing coke. Two years later, improved ovens were introducted by Col. A. M. Hill, which gave a great impetus to the coke making business.

This was the beginning of the manufacture of coke in the great Connellsville field which has set the standard for the world as to quality and today sends to market more than twenty-four million tons annually. The first pig iron west of the mountains made with coke as regular fuel was made by F. H. Oliphant at Fairchance furnace, near Uniontown, in 1836.

The history of coal in Pennsylvania parallels that of iron. The earliest authentic record of the use of coal west of the Allegheny mountains is found in a journal kept by Col. James Burd. In the fall of 1759 he was in charge of two hundred men opening a road from Gist's plantation (now Mt. Braddock) to the Monongahela River at the mouth of Dunlap's Creek, where it was proposed to erect a fort. Col. Burd says in his diary that he camped on Coal Run and that "this run is entirely paved in the bottom with fine stone coal, and the hill on the south of it is a rock of the finest coal I ever saw. I burned a bushel of it on my fire." Coal was mined east of the Alleghenies in Virginia as early as 1750, but there was no mining of coal west of the mountains until 1784. After the Revolution, the Penns were permitted to retain their proprietary rights in tracts of land in the state, and they sold rights to mine coal in the vicinity of Pittsburgh; the first coal was dug in Southwestern Pennsylvania in 1784. From this small beginning, what was originally in Westmoreland County, has come one of the richest coal fields in the world. It was said by Judge Veech that "Coal, if not king, was becoming one of the princes of the land, and its seat of empire was in the Monongahela Valley."

The history of coke follows that of coal closely. The earliest authentic account of the use of coke to make iron places it at Allegheny Furnace, in Blair County, in 1811. It is an accepted fact that the first use of coke in Fayette County was at Plumsock (Upper Middletown) Iron Works, by Col. Meason in 1817. It must be borne in mind that coke had not yet been made in coke ovens, but was burned in pits or rather the coal was piled on the ground in heaps and covered with earth to prevent the admission

of air and was then fired from the bottom similar to the lime pit of today. In 1819, there was a furnace built in Armstrong County, called the "Bear Creek Furnace." It was built for coke and was believed to be the largest furnace in the United States at that time. It was blown in on coke, but, after a few casts, the operators found that it could not be successfully operated on coke with cold blast and the furnace was changed to the use of charcoal. The Howard Furnace, built in 1830, in Blair County and the Elizabeth Furnace in 1832 were constructed for the use of coke, and in furnaces in Clearfield, Clinton, Lycoming, and Armstrong counties, erected between 1835 and 1838, repeated attempts were made at the manufacture of iron with coke, but all resulted in failure. The Great Western Iron Co. built four coke furnaces between 1840 and 1844 at Brady's Bend, Pennsylvania, and to that company belongs the credit of making the first coke and iron as a regular product. These furnaces were built especially for the use of coke and never used any other fuel. For a time Brady's Bend was the center of the iron industry in Western Pennsylvania. F. H. Oliphant is accredited with having used coke as a regular fuel, four years before, but it was not on so extensive a scale as at Brady's Bend. Mr. Oliphant sent to the Franklin Institute at Philadelphia some of the metal produced and samples of the various materials used in the furnace. He did not, however, continue to make coke iron, and resumed the manufacture of charcoal iron, possibly because charcoal made better iron than coke. About the same time, William Firmstone was successful in making gray forge iron at the Mary Ann furnace in Huntingdon County with coke made from Broad Top coal. The coke industry did not, however, assume proportions to entitle it to be classed as a basic industry until 1880 when Henry Clay Frick came upon the scene. Mr. Frick was born at West Overton in 1849 and at an early age he became interested in the coke business. Under his remarkable executive and administrative ability, the coke industry developed almost as if by magic. The story of the development of the Connellsville coke region is the story of H. C. Frick. The name "FRICK" is indelibly connected with the coke industry in Western Pennsylvania.

Iron ore was known to exist in the Youghiogheny and Monongahela valleys as far back as 1780, as is shown by the Court records of Fayette County. There are two horizons of iron ore in these valleys. The upper and more important vein lies immediately below the Pittsburgh Coal bed, and is known locally as the "coal ore" and also as the "blue lump ore". This vein is the more important and was the first ore discovered. The lower vein is in the shales underlying the conglomerate, which is the bottom of the coal bearing series. These local ores run from 33 to 39 percent metallic iron, or an average of three tons of ore to make one ton of iron. The veins are thin—from six to 36 inches and were therefore expensive to operate. This ore is found only in the carboniferous period, and is known as carboniferous ore. There is also a lower ore formation, known locally as mountain ore. There is also a lower ore formation, known locally as mountain ore. This ore is persistent throughout the Connellsville region, but varies greatly in quantity in different localities and should be classed with the Brown or Limonite ores; it is a secondary ore formation. These were the only sources of iron ore supply prior to 1860. They were sufficient to supply the Monongahela, Ohio, and Mississippi valleys with iron until a greater and better supply was discovered in the Lake Superior region. Permit me to say: had it not been for the discovery of iron ore in Michigan and Minnesota, there would have been no Greater Pittsburgh as we know it today. The discovery of iron ore in Michigan in 1844 changed the industrial map of the United States. It developed a million dollar wilderness, built new cities and new railroads and did more than any other factor to give America supremacy in the iron and steel business of the world. The ores of the Youghiogheny and Monongahela valleys served a time and generation, yet all the ores that were mined in these valleys would not supply the present blast furnaces of the Pittsburgh District for two weeks. The Lake Superior District last year supplied 66 million tons of iron ore to feed the furnaces of the country.

The advance in earning power of iron and steel workers has kept pace with the increase in tonnage. The highest salaries paid in the early days would only mean one

meal today. From twenty to forty cents a day was considered "a fair day's pay for a fair day's work." The iron worker at that time received about forty cents a day and was seldom paid in cash. Until 1750 the highest wages paid iron workers was eighty-four cents a day. In Europe, wages were even less; so it was cheaper to import iron than to make it. After the Revolutionary War, workers were scarce and wages advanced. One iron works advertised that it would pay $12.00 a week with board, lodging, and whiskey every day to furnace men. High wages and big profits were unknown until Andrew Carnegie came into the story of steel. It was Pittsburgh that led the way for the steelworker.

The stone stacks of Jacob's Creek and Fairchance, built 140 years ago, had little in common with the modern giants that may be seen along the Monongahela River today. Instead of the stone stacks, erected against the hillside, with its wooden sheds, water wheels and hand barrows, mule and ox teams hauling the ores, charcoal and limestone, we have the towering stacks, hot blast stoves, steam and gas blowing engines, skip filled and closed tops, and a railroad system to handle the materials and take away the product. This represents the beginning and the end of 140 years of iron making in Western Pennsylvania.

The Intellectual Life of Pittsburgh, 1786-1836

By Edward Park Anderson

(Continued)

VI

THE THEATER

The almost total absence of titles of dramatic works in the advertisements inserted in the newspapers by booksellers of early Pittsburgh is noticeable. [1] Not only was the whole of Elizabethan and Restoration drama passed by, but there was no mention of the works of Goldsmith or Sheridan, or of the lesser English dramatists of the late eighteenth century. Shakespeare and Moliere found a place in the library of Henry Marie Brackenridge, and, doubtless, others of his intellectual position were acquainted with them also. The appearance of fragments of Shakespeare in one of the almanacs indicates that his name was not unknown. Yet, it seems that dramatic writings were neither offered to nor sought by the general reading public.

This lack cannot be traced to a general neglect of the theater in America, for the eastern cities had long had playhouses and plays were sold by eastern booksellers. It might be attributed to the lack of acquaintance with the drama that resulted from a lack of facilities for its production. The fundamental reason for the indifference or opposition to the theater lay, however, in the Calvinistic nature of a majority of the people to whom the theater had to look for support. This community, made up chiefly of Scotch-Irish and Scotch, and guided chiefly by Presbyterian ministers and Presbyterian codes of morals, looked askance upon the frivolous, placed all drama in the same category with shady literature, or, if they had no moral objections to the entertainment, were very suspicious of the entertainers. The spirit of thrift, born on the frontier, also entered into the attitude toward the theater.

There were not a few who thought differently, however, and, for this reason, the drama was the one art

about which there were expressions of sharp and opposing opinions, opinions upon its moral rather than artistic side. A reflection of the attitude of some was shown in a letter to the *Gazette* in 1790, the first token of local interest in the drama. [2] After complimenting the nearby town of Washington upon the production, by amateurs, of Thomson's *Tancred and Sigismunda* and a farce, *The Register,* the writer added with a satiric touch: "How the Almighty is pleased with an exhibition of this nature, as it savors of the stage, I do not know; but it is certain that his creatures were much amused on the occasion, the young ladies especially." And he concluded that if such exhibitions could be kept chaste, of a reasonable expense, and of not too great length, they would be commendable.

He must have won few to his cause, for the first public theatrical production in Pittsburgh did not take place until thirteen years later when "the young gentlemen of the town" presented John O'Keefe's very popular comic opera, *The Poor Soldier,* and a farce, *The Apprentice.* [3] The program was repeated three weeks later for charity. Both productions were given in the court house.

The next step in the city's dramatic history came with the organization, in 1806, of a Thespian corps by a group of law students of whom Henry Marie Brackenridge was one. [4] His father, who had written two masques in his youth, refused to let his son continue in this pastime, however, for he believed that it was a waste of time and that it led to bad associations. The other young men were able to go ahead with their project nevertheless. They procured a room in the court house for a theater, and, unable to find competent musicians in Pittsburgh, imported from Philadelphia, at a cost of several hundred dollars, musical accompaniment for the plays that they produced that winter. In the following year, another society was formed by some young mechanics of the borough. The two societies united. Under the direction of an artist-musician from Boston, named Dearborn, the court house room was fitted with attractive settings. Here the players performed about once a month during the winter, and creditably except in the female roles. [5]

These societies, the length of whose existence is unknown, were succeeded in 1817 by a new organization, the

Thespian Society, composed of students of the Academy. Its first presentation, consisting of John Hodgkinson's *The Man of Fortitude* and a farce, *The Review*, was made for the benefit of the Male Charitable Sunday School. Some of the audience were enthusiastic about the execution of the plays themselves and about the theater in general, [6] placing the drama above the preacher as a teacher of morals. Many were unenthusiastic or openly opposed. The society persevered, nevertheless, and produced Otway's *Venice Preserved*, accompanying it, as was customary, with a farce, *The Register*. [7]

The following year, they produced Thomas Morton's *The Cure for the Heartache* and, along with it, *The Wag of Windsor*. This production, which, incidentally, was not announced in the newspaper in any other way, occasioned another letter to the *Gazette*, possibly from someone connected with the production, which praised the actors, defended the stage on moral grounds (with quotations from *The Spectator)*, and made a comment that is interesting—

> A complaint has frequently been made against the western country that we are so much occupied with the pursuit of gain as to have acquired a sordid and unsocial cast of character. This charge is usually urged in the coarse and indiscriminate terms which characterize others from the same quarter; yet it cannot be denied that the eager and enterprising industry which so honorably distinguishes our citizens leaves them but little time to attend to minor objects. Whatever, therefore, has a tendency to mingle us harmoniously together, to soften the manners, to relax the brow of care, and to wear off those sharp points of character which seem to grow out of an exclusive devotion to business deserves attention. Nothing is better calculated for this purpose than a well regulated stage, and we therefore express our hearty good wishes toward the company whose performance has drawn us into these we fear tedious remarks. [8]

The West was beginning to realize the choking grip that industry and trade had upon its nascent culture. Yet better things were coming. The professional drama followed the amateur. It was not only slow in becoming established, but was very irregular for many years afterwards. The first obstacle, the lack of a regular theater, was overcome in 1812 when William Turner, whose wife was a singer and actress of some local fame, [9] organized by subscription the Pittsburgh Theater. [10] An auditorium with a capacity of four hundred [11] was erected or otherwise procured and, in 1813, the theater was opened with

Mr. Webster in *To Marry or Not to Marry,* by Mrs. Inchbald, and *The Irishman in London,* a farce. [12] The theater prospered. [13] Actors were imported to take the leads with the support of the regular company, and, in the manner of the times, received their remuneration through benefit performances. The plays produced were not ones that have lived as classics, but they were the sort of melodramatic and partly musical works that had been written and produced in England and America of the preceding half century, and they were very popular at that time. It was customary to have the serious production, tragedy or comedy, accompanied by a farce or by some light or spectacular piece of entertainment, such as "a grand transparency representing the apotheosis of the immortal Washington," [14] a "view of the River Rhine by Moonlight," [15] comic songs ,or feats of legerdemain. [16]

The following season (1814-1815) was more irregular, but it brought the first play of Shakespeare that was produced in the city; *King Lear* was given along with Colman's *Inkle and Yarico,* a popular opera. [17] In the autumn of 1815, Pittsburgh was visited for the first time by a company of actors from the East when Samuel Drake led a troupe on the first regular tour of the West. [18] The actors were not of the best, and all sorts of improvisations had to be made in order to present a play successfully. Tobin's *Honey Moon* and Sheridan's *Pizzaro, or the Virgins of the Sun* were among the plays given during the company's stay of more than a month. [19].

For some reason, all the plays produced—evidently a majority of them—were not advertised. This was especially true in 1816-1817 when only the "last nights" of the Thespian Society and of the Pittsburgh Theater were announced. [20] The next season, however, was ushered in with greatly increased publicity. As early as June of 1817, the public was informed that the theater would present performers of "first rate talent" from New York, Philadelphia, Boston, and Charleston theaters. [21] The season opened in early August, and the editor of the *Gazette,* young John Scull, could not contain himself. He, who could remember the town as little more than an Indian village, "when the only circumstances that tended to chase the gnome of dulness . . . were the occasional visits of an awkward itinerant

slight of hand man, or the war dances of our red brethren on their periodical visits to their great father in Washington," believed that "the appearance of Mrs. Entwisle on the Pittsburgh boards will constitute an important era in the annals of western taste and improvement." And he called "upon the fair sex in particular to step forward on this occasion and, with their presence as well as praises, prove that taste is not confined to the seaboard." [22]

A more widely traveled and less prejudiced person was not so enthusiastic. Henry B. Fearon, the English traveler, happened to visit the Pittsburgh theater that season when *Hamlet* and the farce of *Turn Out* were being presented. He agreed with Scull that Mrs. Entwisle's acting in the farce could scarcely be surpassed on the English stage. But he found Horatio "dead drunk and extremely dirty." Poor as the acting was, however, he believed it superior to the audience, who he thought could not have appreciated it had it been good. [23] Yet he later saw the same company performing in the national capital. [24] Whatever its qualities, the company continued for fifteen weeks, giving two performances each week, with a change of program at each performance, a comedy and a farce usually being presented. Performances were on Wednesdays and Fridays at seven-fifteen, in order that they would not last too late. Admission was one dollar for boxes and seventy-five cents for the pit.

For a year, dramatic production was in abeyance, and a play by the Thespian Society in 1819 was received with great enthusiasm by the editor of the *Gazette*, who was glad to "hear of anything that is calculated to rouse and shake us up a little from this lethargy." [25] Used only occasionally, the theater, much too small to make a performance profitable, became very dilapidated. [26] For almost fifteen years, the city had been without a regular theatrical season when, in 1833, a new theater was erected.

The new theater was advertised daily for two months prior to its opening in September, 1833. The architect was said to be a famous one. A London artist designed the costumes to surpass anything in America. The scenery was the best. Most important of all, Edwin Forrest was engaged for two weeks and was induced to stay a week longer. Consequently, a goodly number of Shakespeare's

plays were produced. In all, it was a gala season.

Yet, the theater was not unreservedly accepted, and the opposition of the church-going people especially was still an important obstacle. [27] Under such conditions, the theater had to serve the limited number of its patrons well if it expected to make any profit. The absence of twenty or thirty families and their friends from a performance was sufficient to seriously affect the receipts. The theater did not prosper, and in a few years, was little used. [28]

The plays that were given in Pittsburgh at this period were not the sort to live. They were of a highly amusing or melodramatic nature and were well accepted by an audience that, on the whole, could not have been too well educated. Even the plays of Shakespeare and of the Restoration dramatists were not produced in a serious manner. This condition was not peculiar to Pittsburgh, however; rather it was one common to all theaters in England and America. In England, where the style of American plays was set and where a majority of the plays produced in America were written, the theater no longer entertained all the nation, as it had done in Elizabethan times, or the court class, as it had done at the Restoration, but catered to a more unpolished class. This circumstance, together with the increased size of theater auditoriums which made the actions and words of the stage more difficult to follow, had brought the introduction of less subtle comedy, moral rather than serious intellectual plays, and exaggerated gestures and expressions. The stage in the early nineteenth century held much the same position that the motion picture theater holds today; the plays presented could occasionally be enjoyed by cultured people, but they were written and produced especially for a less well educated class.

The plays produced in Pittsburgh were, in most cases, the ones that had been produced or were to be produced within a short time in the East, [29] which, in turn, was not far behind London. The class of people that viewed the plays must have been very much the same in each place. Serious plays were produced, of course, but the character of the production depended upon the character of the audience, and the audience demanded a certain

amount of slap-stick entertainment. As if in fear that the audience might be dismayed by something no more heavy than a comic opera, a performance always closed with a farce, even if the main production had to be abruptly curtailed to allow time for it. Such was the theater in Pittsburgh; such was the theater of the time.

* * *

The theater was supplemented and sometimes rivaled by exhibitions of various kinds. The displays of wax works, portraying famous people and famous scenes, were numerous. [30] Music of some kind usually accompanied these shows. Other recreational attractions included a display of "philosophical entertainments and epiric fireworks," [31] "illusions in ventriloquism," [32] and feats of magic. [33] On two occasions, menageries of African animals were exhibited to the accompaniment of music on the "patent organs." [34] Circuses also appeared, although they were opposed by conscientious and thrifty church people almost as much as the theater. [35] These amusements, however, came at long intervals; fortunately, perhaps, for they provided times long to be remembered by people who had been temporarily lifted from a life that must have been rather dull even in that age.

NOTES

1. *Pittsburgh Gazette*, December 18, 1801, "a variety of plays" advertised Cramer. *Ibid.*, May 7, 1802, He advertised Lillo's *George Barnwell.*
2. *Ibid.*, February 20, 1790.
3. *Ibid.*, February 18, 1803.
4. H. M. Brackenridge, *Recollections* etc., p. 105.
5. F. Cuming, *Sketches of a Tour*, pp. 66-67.
6. *Pittsburgh Gazette*, January 14, 1817.
7. *Ibid.*, April 14, 1817.
8. *Ibid.*, November 13, 1818. The same feeling also in S. Jones, *Pittsburgh in 1826*, p. 43.
9. *Pittsburgh Gazette*, January 22, 1813.
10. *Ibid.*, May 15, 1812.
11. N. M. Ludlow, *Dramatic Life As I Found It*, Saint Louis, 1880, p. 65.
12. *Pittsburgh Gazette*, September 3, 1813.
13. *Ibid.*, November 26, 1813.
14. *Ibid.*, September 10, 1813.
15. *Ibid.*, November 5, 1813.
16. *Ibid.*, January 29, 1819.
17. *Ibid.*, March 11, 1815.
18. N. M. Ludlow, *Dramatic Life As I Found It*, p. 50ff.
19. *Ibid.*, p. 61.

20. *Pittsburgh Gazette*, April 4, 1817.
21. *Ibid.*, June 6, 1817.
22. *Ibid.*, August 12, 1817.
23. Henry Bradshaw Fearon, *Sketches of America*, London, 1818, pp. 211-212.
24. *Ibid.*, pp. 294-295.
25. *Pittsburgh Gazette*, November 12, 1819.
26. N. M. Ludlow, *Dramatic Life As I Found It*, pp. 280-282.
27. *Ibid.*, p. 409.
28. Lyford, *Western Address Directory*, 1837 (Baltimore), p. 73.
29. *Cf.* G. C. D. Odell, *Annals of the New York Stage*, vols., I and II.
30. *Pittsburgh Gazette*, October 22, 1802; December, 1816; *Pittsburgh Mercury*, July 31, 1822; *Pittsburgh Gazette*, August 22, 1817.
31. *Pittsburgh Gazette*, April 8, 1803.
32. *Pittsburgh Mercury*, December 6, 1820; *Pittsburgh Gazette*, October 28, 1833.
33. *Pittsburgh Mercury*, May 15, 1827.
34. *Pittsburgh Gazette*, October 28, 1814; November 8, 1818.
35. *Ibid.*, May 11, 1819; January 14, 1834.

VII

MUSIC

The public execution of musical compositions, along with the production of dramas, long played a minor role in the life of Pittsburgh. Like a successful theatrical performance, a successful concert requires a training on the part of the performers and an appreciation on the part of the audience that a frontier settlement could scarcely supply.

There were, however, numerous persons interested in music. As early as 1786, a newspaper advertisement gave assurance that a teacher of vocal music would find encouragement in the town. [1] Such a teacher appeared later in the person of a former chorister of an English cathedral, a Mr. Tyler, who taught both sacred and secular music. [2] Soon after the beginning of the new century, the Appollonian Society was organized under the direction of Mr. Dearborn who turned to music when his preferred art of painting failed to provide him a livelihood. The dozen gentlemen who composed this society rendered private concerts with unexpectedly good taste, and many people joined it just for the privilege of attending these concerts. [3]

This early start in organized musical entertainment leads to the conclusion that there was much more music in the town than can be found in the scattered references to such an interest that appeared in the newspapers. One early Pittsburgher boasted of his ability to compose songs. This was Dennis Lougery whose forte was celebrating contemporary military events. None of his works are preserved. Yet his newspaper advertisements tell that he composed a song about General Harrison's victory at Tippecanoe, [4] another on *The Prospect of Taking Canada,* [5] and a third to celebrate Perry's victory on Lake Erie. [6]

As schools for girls became established, the opportunities for learning to play upon the piano or the violin or to sing increased. And several music teachers offered their services. They must have found pupils, for the city had two stores at least which sold the latest and most fashionable airs and waltzes. One sold violins, ladies' shoes, and French paper hangings in addition to sheet music. [7] A violin maker was also to be found in the town

in 1809.[9] Sometime before 1826, William Evens, the first Pittsburgher of whom we know who took a great interest in music, opened three singing schools. The young people attended such schools chiefly on account of the opportunities for social intercourse that they offered. There they could spend pleasant evenings while learning to sing church music, to which Mr. Evens's schools were confined.[9]

Sacred music was also practiced by several musical societies which were organized from time to time. These societies probably functioned weekly, but they presented very few public concerts, so few, indeed, that in the carefully kept scrap book of William Evens there are only six recorded in fifteen years.[10] At these concerts music was presented which was "calculated not only to please, but to improve the taste for sacred music which is so essentially wanted in our churches." The numbers presented were, many of them, ones that are still favorites in the churches.

Concerts of secular music also occurred at irregular intervals. In 1799, a Mr. Declary and a Miss Sophia Weidner announced a concert of vocal and instrumental music in the assembly room of one of the taverns,[11] a place which even the most genteel of the borough's citizens could frequent. Two years later, a military band performed at the same tavern.[12] In that year also, Mr. Declary, who then termed himself "music master in Pittsburgh" conducted a public concert by his pupils. It included the long-famous *Battle of Prague,* played, as it was played publicly many times later throughout the West, by a child of eight. The concert was concluded by the new *President's March,* the title by which *Hail, Columbia* was first known, and was followed by a ball.[13] Mr. Declary could not have been very successful as a music teacher, for he later opened a grocery and drygoods store.[14] The advertisements of other teachers indicate, however, that the town was not without musical instruction.

Other of the teachers had a sufficiently great number of pupils to present concerts. The next such concert announced, that of the pupils of a Miss Demilliere in 1814, consisted of compositions that show good taste. Among the numbers given were selections from Mozart, Martini, Nicoli, Rust, J. B. Cramer, and Steibelt.[15] How well these

numbers were executed, is, of course, another question.

A concert that is interesting for the light that it throws upon the frontier attitude toward the arts was that presented by a Mr. Lewis and his five children. [16] In this instance, the attraction lay in the performers rather than in the performance. As in theatrical productions and, as will be seen later, in displays of art, the appeal was to the audience's desire for the curious or spectacular. Even if the performers were proficient and had good taste in music, they were, after all, earning their living and, although they may have presented music of a high order, could not depend upon that alone to draw patrons. The city was a bustling, growing place, neither calm enough or old enough to have acquired fine taste. A spectacle was a spectacle, whether it was presented in the theater, the concert hall, or in the circus tent.

Those who were really interested in music indulged their interest privately. As time passed, however, the Apollonian Society began to give public concerts in the grand jury room of the court house. [17] Still later the Pittsburgh Musical Fund Society [18] was organized and established Concert Hall. [19] Two concerts were announced there, although many others must have been given. One was by the "Tyrolese Minstrels," appearing in their native costumes and singing English versions of Swiss songs. [20] The other was a *"soiree musicale"* that complimented the taste of its listeners with selections from Kreutzer, Rossini, W. Schindlocker, Haydn, Mozart, Beethoven, Whitefield, Merk, Blum, and Martini. [21]

It is fair to say that an advance had been made in the quality of music presented in the city. It would be unfair to say that Pittsburgh at this time had any musical life that was at all distinctive. Its was the musical interest of the average town of the time outside the large cities of the East, nothing more.

(TO BE CONCLUDED)

NOTES

1. *Pittsburgh Gazette*, November 25, 1786.
2. F. Cuming, *Sketches of a Tour*, p .64.
3. *Ibid.*, pp. 65-66.

4. *Pittsburgh Gazette*, January 24, 1812.
5. *Ibid.*, July 10, 1812.
6. *Ibid.*, November 12, 1813.
7. *Ibid.*, June 16, 1818; *Pittsburgh Mercury*, October 18, 1820.
8. *Pittsburgh Magazine Almanack*, 1809, p. 29.
9. *Pittsburgh Mercury*, November 22, 1826.
10. *Pittsburgh Gazette*, March 11, 1817; April 29, 1817; July 18, 1818; October 5, 1819. *Pittsburgh Recorder*, November 9, 1824. *Pittsburgh Mercury*, October 30, 1827.
11. *Pittsburgh Gazette*, August 31, 1799.
12. *Ibid.*, January 30, 1801.
13. *Ibid.*, October 30, 1801.
14. *Ibid.*, March 3, 1803.
15. *Ibid.*, September 7, 1814.
16. *Pittsburgh Mercury*, September 2, 1823.
17. *Ibid.*, July 17, October 30, 1827; February 5, 1828.
18. *Pittsburgh Gazette*, January 5, 1836.
19. *Ibid.*, December 29, 1832.
20. *Ibid.*, January 13, 1834.

The French Architect of the Allegheny City Hall*

By Emilie McCreery

Charles Antoine Colomb Gengembre, French architect and engineer, was born 1790 in Paris. A member of the Corps de Garde of the King of Westphalia, he was pronounced too delicate for active service and was honorably discharged from that organization.

In 1809 he built the Mint of the City of Cassel, France, and in 1814 competed in architecture for the Grand Prix de Rome, winning second place. With three fellow students Mr. Gengembre travelled extensively in Italy, revelling in its treasures of art and bringing back numerous sketches of palaces and monuments.

From 1820 to 1825 Mr. Gengembre, after considerable experimenting and many tribulations, succeeded in making the first illumination by oleaginous gas and established the heating and lighting of the Grand Opera.

In 1826 he undertook "at his own risk and peril", building for the government the Port St. Ouen (at that time on the outskirts of Paris), often employing 1000 workmen at a time. After four years of strenuous work Mr. Gengembre was confronted by the Insurrection of 1830, July 27, 28, and 29 when Louis X was dethroned and Louis Phillipe, the Citizen King, was installed. Business was in such a chaotic condition that work on the Port was abandoned as also on the beautiful home which Mr. Gengembre had built here in the Italian style. As an eye witness of the Insurrection he had sustained a bayonet wound, as the military rushed by, nearly putting an end to his earthly career.

In 1831 Mr. Gengembre joined Londen relatives, spending one year there. During this period he took out patents for Stevenson's first six wheeled locomotives; also made plans for Boulton's Manchester and Liverpool Railroad.

In 1832 he became architect for a year at Charles Fourrier's "Falensterre"—The Colony de Conde sur-Ves-

*Read before the Society, April 29, 1931.

gre, France. In 1833 he took his family to Indret on the Loire, becoming draughtsman for the Government. It was here for the first time that French war vessels were constructed and equipped with machinery "Made in France". This establishment was situated on the island of Indret, near Nantes and the estuary of the Loire. In 1834, Mr. Gengembre built himself a little steamboat, the "Marianne", a side-wheeler, 100 feet long, of 20 tons and only six horse power. With his wife, his young son as engineer, and a pilot, he started on a sea-voyage of about one hundred miles to Port Louis on the west coast of France. For four years the "Marianne", with engineer and "one hand" plied as passenger-ferry between Port Louis and L'Orient six miles out on the Bay of Biscay. Mr. Gengembre returned to Indret and the Government works. While there he supplied plans for the erection of an extravagant residence of a local nobleman; it consisted of nine courts, dome, and colonnades, the ensemble resembling an Oriental palace.

In 1841, Mr. Gengembre was nominated by the Minister of Marine as constructor of the Civil establishment of Indret; in this capacity he built huge machines for dredging works. As each district of France was now obliged to furnish its own public schools, Mr. Gengembre was for a time kept busy supplying plans for the Communal Schools.

Feb. 26, 1848 came the Revolution, Louis Philippe being dethroned and the second Republic proclaimed. A staunch patriot, liberal minded and progressive, Mr. Genembre. became discouraged with the disorganizing upheavals and seeing no promising future before him, in company with one other family, prepared to leave his native land hoping to spend in the United States of America a peaceful old age. In the fall of the year of 1849 he came to Cincinnati, but subsequently settled in Manchester, Allegheny City, Pennsylvania. Here he built his first home, a tiny cottage on Beaver Avenue; with a roof over his head Mr. Gengembre straightway ordered an exquisite Steinway Pianoforte from the firm of Henry Kleber, Wood St., which order Mme. Gengembre weepingly rescinded, on account of lack of house room. The Gengembre family promptly found its place among the cultured people of Pittsburgh. They resided later in the fashionable Colonnade Dome on Federal Street, Allegheny City. A daughter, Mrs. Anderson,

a gifted artist, exhibited her work in London successfully and resided for sometime in the Island of Capri, with her husband who was also an artist. Mrs. Anderson painted portraits of many of our early citizens, notably the Algeo, Pressley, McCance, and Kennedy families. Landscapes from the brush of Mr. Gengembre, who was also an artist, adorn the halls of old drawing rooms in this city. He left his mark on society here and his words are still quoted; his advice to young married people as to their budget was to make a list of all those things they thought they needed, then go over the list striking out everything they could do without. Addressing a beautiful woman, Mrs. Dr. Thomas Dale, he assured her he found her very homely, indeed, meaning domestic and devoted to her family.

Mr. Gengembre supplied the plans for the present City Hall of North Side, which was built in the period between 1862 and 1864. He had planned to inscribe the ten Commandments in a blank window space, probably on the west side of the building, now covered by an addition. Before this could be done, some of the Powers-That-Be approached Mr. Gengembre with an offer of a share in the loot which seems to be inseparable from such operations. He had come to America like so many others thinking morals of all lucky enough to be here to be unimpeachable; he was now thoroughly disillusioned, having supplied the architectural plans without remuneration. He thereupon vowed he would never again speak one word of English and is said to have kept his word.

The family of Gengembre never had been able to hear the name pronounced to their satisfaction, so they took the family name of Mme. Gengembre,—Hubert. Soon after the death of Mr. Gengembre in 1863 who is buried in Uniondale Cemetery, North Side, one son Philip Hubert went to New York City where he claimed to have built the first sky-scraper there, thirteen stories high, which seems to have been the Spanish Flats on West 58th Street. The other members of the family went to California, where they still reside.

As to the merits of the architecture of Allegheny City Hall, I take pleasure in quoting from letters received from several of our most brilliant Pittsburgh architects. The first letter is from R. U. Trimble, Fellow of the Amer-

ican Institute of Architects, a past President of the Pittsburgh Chapter of the A. I. A., and recently appointed by President Hoover to serve on the "Committee on Design" of the President's Conference on Home Building and Home Ownership. Mr. Trimble says:

"The City Hall of Allegheny is a good example of the architecture of the period in which it was built; the period when good taste in design was more common than in the years immediately succeeding; the days when economy was imperative and a wide choice of materials did not exist.

The building is simple, dignified and well proportioned and with its gabled pediments and pitched roof, is a charming composition. The design clearly sets it apart as a "Public Building" which gracefully adorns the small square in which it sits. The simple detail in plain brick and wood is well placed and very good.

The Federal Street wing with its long arched windows is imposing and clearly expresses the plan of the two storied Council Chamber, equal to two floors of offices in the rear wing. The projecting balcony over the Federal Street entrance is a fine architectural feature.

All in all I consider the building a fine expression of its time and purpose, a building I should be proud to have designed."

The second letter is from Mr. Harry Viehman, architect registered in Pennsylvania, member of the American Institute of Architects. Mr. Viehman says:

"The Allegheny City Hall is, in my opinion, a fine old bit of architecture whose beauty has been almost totally obliterated by the dreadful paint, probably prescribed and applied during the gay nineties. The rear wing is undoubtedly an addition as evidenced by vertical construction joints in side walls of rear wing where they join main building, and I mention it first to get it out of the picture, with its skinny pilasters imitating those of the original structure, its many stupid combination flat and circle top windows with clumsy keyblocks and its ill looking rear pediment. It cannot be the work of the same architect as the front portion.

The main building facing Carnegie Library and formerly with front and rear facades probably nearly alike is really excellently done and in good scale. Its charm lies in its inexpensive simplicity; its openings are well placed and of pleasing proportions even to the sash divisions. The motif with base, pilastered shaft, and cornice is quite truly classical.

Intrigued by its handsome exterior I started inside ready for a treat and was not disappointed in the vestibule with its modest door-screen, but beyond this there were monstrous stairs, atrocious metal ceilings, dirt and dinginess. Up the creaking steps I found more ruins of former splendor in the front but again a quite inferior rear portion.

I cannot but be incensed at the stupidity of a municipality with the reputed intelligence of Pittsburgh that permitted this relic of bygone days to be altered by an inartistic engineer or incompetent architect, to be smothered under a coat of hideous paint, and to be maltreated and ruined by undiscerning occupants and caretakers, when the exercise of just a little respectful comprehending care could preserve it as a thing of beauty, without affecting its utilitarian value one iota."

The third letter is from the pen of Mr. Frederick Bigger, President of the Pittsburgh Chapter of the American Institute of Architects, Architect and Town-Planner of the Citizens' Committee on City Planning. Mr. Bigger says:

"The Allegheny City Hall is not a costly structure. There was probably great difficulty experienced in raising the money for its construction, the majority of citizens probably holding that ornamentation and beauty of design was aside from the purpose in building."

Mr. Bigger thinks, considering the difficulties, the City Fathers might be congratulated on this design, immeasurably superior to many others west of the Allegheny Mountains at that period.

Report of the Librarian

For year ending April 28, 1931

To the officers and members of the Historical Society of Western Pennsylvania

As your librarian writes this report, the Society's fine new home stands completed, a monument to the foresight, energy and perseverance of a small group of practical idealists who wished to give Pittsburgh and Pittsburghers something to be proud of. At the happy moment of realization, one feels saddened by the thought that one member of this group, a man for many years vitally and constructively interested in the fortunes of the Society, was not spared to see the culmination of his efforts; I refer to our late beloved President, Mr. William Holmes Stevenson, who died on September 22, 1930.

Just one week after his death, construction work was begun. While everything was progressing briskly roundabout, the inner functions of the Historical Society also proceeded on schedule. To the accompaniment of steam-shoveling, concrete-mixing, riveting, hammering, painting, dust, dirt and general confusion, telephone inquiries were answered, correspondence conducted as before, magazines, notices of meetings and circular letters sent out as usual all of which is a matter of some pride to our department. The only noticeable curtailment of activity was in the matter of visitors, who practically ceased coming as all documents and exhibits of the Society had been stored.

During the past year letters of inquiry on historical matters covered a wide range of subjects, a large percentage of them being from other cities and states. Reference work with detailed answers to correspondents was done on the following subjects: old cannons at the Arsenal, outline history of Pittsburgh, history of the Ohio Valley, the Henry Kirke Porter house in Oakland, for the University of Pittsburgh, history of Birmingham on the Southside (twice), history of the old Monongahela House (twice), the Civil War fortifications in and around Pitts-

burgh, the shape and construction of Fort Pitt (3 times), The Scotch Irish of Pennsylvania (twice), the Quakers of Western Pennsylvania, history of old Economy, Forbes Route, names of officers of the old Eclipse Barge Club, data on Logstown and Shannopinstown, the Declaration of Independence, the Sandusky Expedition, Marietta Iron Works, exact location of Braddock's grave, the Seal of Fort Duquesne, the old Forsythe cabin on Penn Avenue, a brief history of McKeesport, etc.

Of more than passing interest were data prepared for two college professors from the middle western states who desired material relative to the Mormons in Western Pennsylvania, with particular reference to Sidney Rigdon who was so prominent in founding the Mormon Church; also research work on two women of the Revolution, Mrs. Greer and Mrs. Warner of Westmoreland and Dauphin Counties, who accompanied their husbands on Arnold's ill fated expedition to Quebec, 1775. Origin of names of more than 100 Allegheny County towns together with brief historical sketches were furnished to the Commissioner of Crater Lake Park, Oregon, eventually for government reference files. A correspondent from Virginia wanted biographical material on Charles Avery, the Pittsburgh druggist, minister, philanthropist and abolitionist, who was at the height of his career between 1840 and 1858. An author connected with the Teachers College at Indianapolis was assisted with data on General Abner Lacock, a considerable part of which our department acquired by correspondence with Abner Lacock's descendants. Sawmill Run, the origin of its name, sawmills located along its course and in the vicinity of Pittsburgh during the early days, was a topic of interest to three correspondents. The exact route taken by General Anthony Wayne in transporting his troops from Fort Fayette to Legionville in 1793 and whether or not it actually passed through Sewickley, was another interesting topic. Names and locations of various Indian tribes were sought, principally those about McKeesport; also material on canal construction and canal boats along the Western Division of the Pennsylvania Canal.

Several persons wished to know about the early iron works of Pittsburgh and vicinity. Two inquiries came

concerning Lafayette's sojourn in Pittsburgh and by what route he journeyed to New York. Source material on the Oregon and Santa Fe Trails, the Western Expansion, the American Revolution, the annexation of Texas, the Gold Rush, Erie Canal, and Civil War was listed for an educator from one of the western states, as was source material for pictures, lantern slides, pamphlets, maps, books, diaries and biographs. The location and construction of the earliest houses in Pittsburgh interested a number of correspondents as did the history of the first Court House and its rebuilding; the Western Penitentiary, the earliest bridges spanning the Monongahela and Allegheny Rivers, the history of Andersonville Prison. From London, England, came a letter asking the title of a paper that had been read many years ago by Rev. A. A. Lambing; we were gratified to be able to give this information from an old minute book of the Society.

One unusual correspondent was a French Canadian from the Province of Saskatchewan who wanted to know all about Fort Duquesne, whether anything was left of it, how far from the Battle of Monongahela, all because he was a descendant of one of the men employed in the construction of the old French Fort. A correspondent from a neighboring county wished to know whether a monument had been erected to commemorate the site of an attack upon George Washington by a treacherous Indian while here in 1753. A rather odd inquiry was one regarding the exact moment when President Lincoln arrived in Pittsburgh on his memorable visit, February 14, 1861. For a New Yorker we furnished a brief historical sketch of Coal Hill and the early residents there; to other correspondents we gave the dates of the big flood and fire in Allegheny, 1874. A New York publisher requested a biographical sketch of the late Senator John P. Harris, which through the kind co-operation of Mr. Eugene L. Connelley we were able to give. Two publishing houses in New York and Boston wanted views of early Pittsburgh for use in new United States Histories soon to appear. Photographs of General James O'Hara, Hon. Harmar Denny, Major Ebenezer Denny, and Judge Moses Hampton were loaned for reproduction in local publications. Various pictures and maps were loaned to the United States Bureau

of Mines for reproduction. A Chicago publishing house asked for a copy of the title page of Sherman Day's Outline of History of Pennsylvania to complete an old book. The exact route of the Ohio River Boulevard with names of all historic places traversed, was asked by Ohio and Colorado correspondents, and recently a list of captions for historic markers to be erected along the Allegheny and Ohio River Boulevard as suggested by the late William H. Stevenson, was submitted to us for corrections and additions. Names of Indian chiefs of Western Pennsylvania were suggested as suitable designations for local Boy Scout divisions. Club women were assisted in the preparation of historical talks; names of women of outstanding achievement in Western Pennsylvania prior to 1870 were sought for the Memorial to Pennsylvania Women at Strawberry Mansion, Philadelphia. We suggested Mrs. Jane Swisshelm, pioneer journalist, abolitionist, lecturer, author and Civil War nurse, for this honor, and prepared a biographical sketch with reproduction of the subject's self portrait (1840) which appeared in the Philadelphia Public Ledger.

Interest in family history is very noticeable, from the angle of the biographer as well as of the candidate for membership in patriotic societies. For biographical purposes we have recently collected and given out data on the Robinson, Wilkins and Tannehill families to three individuals, one of them a United States naval officer. We were glad to be able to assist over one hundred correspondents from all states in locating information about their forbears and in this connection we find the Pennsylvania Archives invaluable. For this type of work, steadily increasing, we feel the need of more genealogies and county histories especially of those contiguous to Allegheny County, and are hoping that our reference library may in the future be augmented in this respect.

During the year we cataloged all newspapers, pamphlets, periodicals, almanacs and imprints published prior to 1850. The library has been enriched by a number of new historical publications, presented by generous authors and publishers as well as by a recent gift of old pamphlets, newspapers and imprints, not yet cataloged. Complete sets of the historical magazine have lately been acquired

by the University of Michigan and the Cleveland Public Library.

In concluding I wish to say that 1930-1931 has been a "normal" year in the historical sense; 2,912 pieces of mail were received, 11,460 pieces sent out. We are gratified to note the interest in historical matters shown by old and young alike, in all walks of life and are happy in "doing our bit" for its furtherance.

Emma D. Poole,
Librarian.

April 28, 1931.